

Analysis Report

The Equipment Under Test (EUT), is a portable 2.4GHz Transceiver (Controller Unit) for a RC car. The operation frequency range is between 2435MHz and 2470MHz with 8 channels.

2435	2442	2443	2444
2445	2467	2468	2470

The EUT is powered by 2 x 1.5V AAA batteries. After switch on the EUT, the car will be moved forward or backward and turned left and right based on the switches pressed in the controller.

Antenna Type: Internal, Integral

Antenna Type: Internal antenna

Antenna Gain: 0dBi

Nominal rated field strength is 98.9 dBμV/m at 3m

Maximum allowed production tolerance: +/- 2dB

According to the KDB 447498:

Based on the Maximum allowed field strength of production tolerance was 100.9dBμV/m at 3m in frequency 2.47GHz, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30]$ = 3.691mW

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

Conducted Power = 3.691mW.

The SAR Exclusion Threshold Level:

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

= $3.0 \cdot 5 / \sqrt{2.470}$ mW

= 9.544 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.