

Analysis Report

The Equipment Under Test (EUT), is a 2.4GHz Transceiver (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 1 x 7.4V rechargeable battery. After switch on the EUT, the car will be moved forward or backward, turned left or 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 94.5 dB μ V/m at 3m

Maximum allowed production tolerance: +/- 2dB

According to the KDB 447498:

Based on the Maximum allowed field strength of production tolerance was 96.5dB μ V/m at 3m in frequency 2.47GHz, thus;

The EIRP = $[(FS * D)^2 * 1000 / 30] = 1.340mW$

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

Conducted Power = 1.340mW.

The SAR Exclusion Threshold Level:

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

= $3.0 * 5 / \text{sqrt}(2.47) \text{ mW}$

= 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.