

Analysis Report

The Equipment Under Test (EUT) is a 2.4GHz Controller of RC car operating from 2410-2475MHz with 1MHz channel spacing. The EUT is powered by 3X1.5V AAA batteries. After switch on the EUT and paired with RC Car, the RC Car can be controlled to move forward, backward, turn left/right.

Antenna Type: Internal antenna

Antenna Gain: 0Bi

Nominal rated field strength: 94.1dB μ V/m at 3m

Maximum allowed field strength of production tolerance: +/- 5dB

According to the KDB 447498:

Based on the Maximum allowed field strength of production tolerance was 99.1dB μ V/m at 3m in frequency 2.4GHz, thus;

The EIRP = $[(FS * D)^2 * 1000 / 30] = 2.438\text{mw}$

Conducted power = Radiated Power (EIRP) – Antenna Gain

So;

Conducted Power = 2.438mW.

The SAR Exclusion Threshold Level:

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

GHz) = $3.0 * 5 / \text{sqrt}(2.475)$ mW

= 9.53 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.