

Analysis Report

The Equipment Under Test (EUT) is a 2.4GHz Pure Transmitting Controller for RC Car operated at 2405-2475MHz with 1MHz Channel Spacing. The EUT is powered by 2 X 1.5V AAA batteries. After switch on the EUT and paired with RC Car, the RC Car can be controlled to move forward, backward, turn right/left by the controller.

Antenna Type: Internal integral antenna

Antenna Gain: 0dBi

Nominal rated field strength: 100.8dBμV/m at 3m

Maximum allowed field strength of production tolerance: 98.0 – 101.0dBμV/m at 3m

According to the KDB 447498:

Based on the Maximum allowed field strength of production tolerance was 101dBμV/m at 3m in frequency 2.4GHz, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30]$ = 3.777mW

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

Conducted Power = 3.777mW.

The SAR Exclusion Threshold Level:

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

= $3.0 \cdot 5 / \sqrt{2.475}$ 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.