

Analysis Report

The Equipment Under Test (EUT) is a portable 2.4GHz Transceiver (Controller Unit) for a RC Car operating from 2403-2474MHz with 1MHz channel spacing. The EUT is powered by 3 X 1.5V AAA batteries. After switch on the EUT and paired with RC Car, the RC Car can be controlled to fly forward, backward, turning left/right direction by the controller.

Antenna Type: External integral antenna

Antenna Gain: 0dBi

Nominal rated field strength: 87.0BμV/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 90.0dBμV/m at 3m in frequency 2.4GHz, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30] = 0.3\text{mW}$

Conducted power = Radiated Power (EIRP) – Antenna Gain

So;

Conducted Power = 0.3mW.

The SAR Exclusion Threshold Level:

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

$= 3.0 \cdot 5 / \sqrt{2.475} \text{ mW}$

$= 9.53 \text{ mW}$

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.