

Analysis Report

The Equipment Under Test (EUT) is a portable 2.4GHz Transceiver (controller Unit) operating at 2443, 2446, 2452, 2456, 2458, 2460, 2463, 2466, 2468 and 2470MHz for RC Car. 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 fly forward, backward, turning left/ right direction by the controller.

Antenna Type: Internal antenna

Antenna Gain: 0dBi

Maximum rated field strength: 101dB μ V/m at 3m

According to the KDB 447498:

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

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30] = 3.777\text{mw}$

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

Conducted Power = 3.777mW.

The SAR Exclusion Threshold Level:
= $3.0 \cdot (\text{min. test separation distance, mm}) / \sqrt{\text{freq. in GHz}}$
= $3.0 \cdot 5 / \sqrt{2.470}$ mW
= 9.54 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.