

Analysis Report

The Equipment Under Test (EUT) is a portable 2.4GHz Transceiver (Controller Unit) for a RC Car from 2414MHz, 2423MHz, 2452MHz and 2467MHz of specified channels. The EUT is powered by 2 X 1.5V AA batteries. After switch on the EUT and paired with car, the car can be controlled to move forward, backward, turning left/ right direction by the controller.

Antenna Type: Internal integral antenna

Antenna Gain: 0dBi

Nominal rated field strength: 83.5dB μ V/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 86.5dB μ V/m at 3m in frequency 2.4GHz, thus;

The EIRP = $[(FS * D)^2 * 1000 / 30] = 0.134mW$

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

Conducted Power = 0.134mW.

The SAR Exclusion Threshold Level:

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

GHz) = $3.0 * 5 / \text{sqrt}(2.467) mW$

= 9.55 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.