

Analysis Report

The Equipment Under Test (EUT) is a 2.4GHz Robot (Body Unit) for RC Controller operated at 2415-2465MHz with 1MHz Channel Spacing. The EUT is powered by 1 X 7.2V rechargeable battery. After switch on the EUT and paired with RC Controller, the RC Robot can be controlled to move forward, backward, turn right/left by the controller.

Antenna Type: Internal antenna

Antenna Gain: 0dBi

Nominal rated field strength: 85.3dB 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 88.3dB μ V/m at 3m in frequency 2.4GHz, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30] = 0.203\text{mw}$

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

Conducted Power = 0.203mW.

The SAR Exclusion Threshold Level:

$= 3.0 \cdot (\text{min. test separation distance, mm}) / \sqrt{\text{freq. in GHz}}$
 $= 3.0 \cdot 5 / \sqrt{2.465} \text{ mW}$
 $= 9.55 \text{ mW}$

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.