

Analysis Report

The Equipment Under Test (EUT) is a portable 2.4GHz Pure Transmitter for a Pure Receiver RC Car operated at 2405-2475MHz With 1MHz channel Spacing. The EUT is powered by 1 x 9.0V Alkaline battery. After switch on the EUT and paired with RC Car, the RC Car can be controlled to move forward, backward, turning left/right direction by the controller.

Antenna Type: Internal antenna

Antenna Gain: 0Bi

Nominal rated field strength: 93.9dB 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 96.9dB μ V/m at 3m in frequency 2.4GHz, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30] = 1.469\text{mw}$

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

Conducted Power = 1.469mW.

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.