

Analysis Report

The Equipment Under Test (EUT), is a portable 2.4GHz Transceiver (Car Unit) for a RC car. The EUT is powered by 4 x 1.5V AA batteries.

After switch on the EUT, model: 1002396, the car will be moved forward or backward, turned left or right based on the joystick control in the controller.

Antenna Type: Internal antenna

Antenna Gain: 0dBi

Nominal field strength is 85.3 dB μ V/m at 3m

Maximum allowed 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 2.475GHz, thus;

The EIRP = $[(FS * D)^2 * 1000 / 30] = 0.203mW$

Conducted power = Radiated Power (EIRP) – Antenna Gain

So;

Conducted Power = 0.203mW.

The SAR Exclusion Threshold Level:

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

= $3.0 * 5 / \text{sqrt}(2.475)$ mW

= 9.535 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.