Analysis Report

The Equipment Under Test (EUT) is portable controller for a RC car set which operates at 49.860MHz. The EUT is power by 1 x 9.0V Alkaline battery.

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

Antenna Type: External, Dedicated Telescope Antenna
Antenna Gain: 0dBi
Nominal rated field strength: 65.2dBμV/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 68.2dBμV/m at 3m in frequency 49.860MHz, thus;

The EIRP = [(FS*D) ^2*1000 / 30] = 0.00198mW
Thus;

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

Conducted Power = 0.00198mW.

The SAR Exclusion Threshold Level for 49.860MHz when the minimum test separation distance is < 50mm:
= [474 * (1 + log100/f(MHz))]/2
= 308.6mW

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.