

Analysis Report

The Equipment Under Test (EUT) is a Robot Car.

The EUT is powered by 1 x 3.7V rechargeable battery. After switching on the EUT and being paired with the smart phone via Bluetooth 3.0 protocol, the user can press a sequence of commands via the smart phone app. Each command is either one forward/backward movement, left/ right turn, or a pause. When the <Go> button is pressed, the unit will execute all the commands stored in order with a short pause between each command.

Antenna Type: Internal, Integral

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Antenna Gain: 0dBi

Nominal rated field strength is 95.2 dBµV/m at 3m

Maximum allowed production tolerance: +/- 3dB

According to the KDB 447498:

Based on the Maximum allowed field strength of production tolerance was 98.2dBµV/m at 3m in frequency 2.402GHz, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30]$ = 1.982mW

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

Conducted Power = 1.982mW.

The SAR Exclusion Threshold Level:

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

= $3.0 \cdot 5 / \sqrt{2.480}$ mW

= 9.525 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.