

Analysis Report

Report No.: HK12071116-2

The Equipment under test (EUT) is a portable 2.4GHz RF transceiver (Car) of a RC Car system which operating at 2401MHz to 2480MHz with 1 MHz channel spacing. The EUT is powered by 1 x 7.4V Li-Po type rechargeable battery pack. The EUT has an ON/OFF switch, pairing button and charging port. The RC car can be controlled to moving forward, backward, turning left and right direction by the corresponding controller. The pairing button is used to pair with the controller before running. For battery charging, plug the charge cable from the AC/DC battery charger into charge port for charging.

Antenna Type: Internal integral antenna

Antenna Gain: 0dBi

Nominal rated field strength: 97.0dB 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 100.0dB μ V/m at 3m in frequency 2.4GHz, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30] = 3.0mW$

Conducted power = Radiated Power (EIRP) – Antenna Gain

So;

Conducted Power = 3.0mW.

The SAR Exclusion Threshold Level:

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

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

= 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.