

Analysis Report

Report No.: 13080515HKG-003

The Equipment Under Test (EUT) is a portable 2.4GHz Transceiver (Car Unit) for a RC car operating at 2411 – 2465MHz with 1 MHz channel spacing. The EUT is powered by 1 X3.7V rechargeable battery (Li-Poly). After switch on the EUT and paired with controller, the EUT can be controlled to move forward, backward, turning left and right direction by the corresponding controller. To charge the internal battery in the car, plug the charging connector from the controller into the charging jack on the car for starting the charge process.

Antenna Type: Internal integral antenna

Antenna Gain: 0dBi

Production tolerance: -18dBm (Minimum) to -15dBm (Maximum)

According to the KDB 447498:

Based on the Maximum allowed radiated power of production tolerance was -15dBm in frequency 2.4GHz, thus;

Maximum radiated power (EIRP) is 0.031mW (i.e. -15dBm), thus;

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

Conducted Power = 0.031mW.

The SAR Exclusion Threshold Level:

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

= $3.0 * 5 / \text{sqrt}(2.465)$ mW

= 9.55 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.