

Analysis Report

Report No.: 14030152HKG-003

The Equipment Under Test (EUT) is a 2.4GHz transceiver for a RC plane that operating at 2413 to 2475MHz with 1MHz channel spacing. The EUT is powered by a non-replaceable 3.7V rechargeable battery pack. After switched on and paired with the corresponding controller, the EUT can be controlled to moving forward, turning left and right directions. For battery charging, the internal battery of EUT is charged by corresponding controller.

Antenna Type: Internal integral antenna

Antenna Gain: 0dBi

Nominal rated field strength: 101.0dBμV/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 104.0dBμV/m at 3m in frequency 2.4GHz, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30] = 7.536\text{mW}$

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

Conducted Power = 7.536mW.

The SAR Exclusion Threshold Level:

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

= $3.0 \cdot 5 / \sqrt{2.475} \text{ mW}$

= 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.