

Analysis Report

Report No.: HK13020722-1(R1)

The Equipment Under Test (EUT) is a portable 2.4GHz Transceiver (Controller Unit) for a RC helicopter operating at 2412 – 2469MHz with 1 MHz channel spacing. The EUT is powered by 8 X 1.5V AA batteries. After switch on the EUT and paired with helicopter, the helicopter can be controlled to fly forward, backward, turning left and right direction by the EUT. To charge the internal battery in the helicopter, plug the charging connector into the charging jack on the helicopter for starting the charge process.

Antenna Type: Internal integral antenna

Antenna Gain: 0dBi

Production tolerance: -2dBm (Minimum) to +2dBm (Maximum)

According to the KDB 447498:

Based on the Maximum allowed radiated power of production tolerance was +2dBm in frequency 2.4GHz, thus;

Maximum radiated power (EIRP) is 1.574mW (i.e. +2dBm), thus;

Conducted power = Radiated Power (EIRP) – Antenna Gain

So;

Conducted Power = 1.574mW.

The SAR Exclusion Threshold Level:

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

= $3.0 * 5 / \text{sqrt}(2.469) \text{ mW}$

= 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.