

# Analysis Report

Report No.: 14061336HKG-002

The Equipment Under Test (EUT) is a portable 2.4GHz transceiver (a RC toy Video Recon with camera). The EUT is powered by DC6.0V (4 X 1.5V) AA batteries. It is designed to operate frequency hopping system in 2410 – 2473MHz with 16 physical frequency channels when communication with corresponding transceiver (i.e. Controller). After Switched ON and pairing with controller, the EUT can be controlled to moving forward, backward, left and right. Also the instant video can be transferred to the controller.

16 frequency hopping channels are shown as below;

2410MHz	2415MHz	2420MHz	2425MHz	2429MHz	2430MHz
2434MHz	2435MHz	2439MHz	2445MHz	2449MHz	2454MHz
2459MHz	2464MHz	2469MHz	2473MHz		

Antenna Gain: 0dBi

Nominal rated field strength: 98.7dB $\mu$ 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 101.7dB $\mu$ V/m at 3m in frequency 2.4GHz, thus;

The EIRP = [(FS\*D) ^2\*1000 / 30] = 4.437mW

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

Conducted Power = 4.437mW.

The SAR Exclusion Threshold Level:

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

= 3.0 \* 5 / 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.