

Analysis Report

Report No.: 17050992HKG-002

The Equipment Under Test (EUT) is a portable 2.4GHz Transceiver (Car Unit) for a RC car operating at the frequency of 2407, 2445 and 2477MHz only.

The EUT is powered by 3*1.5V AA batteries. After switching on the EUT and being paired with the controller, the car can be controlled to move forward/backward and turn left/ right by the controller.

Antenna Type: Internal integral antenna

Antenna Gain: 0dBi

Nominal rated field strength: 89.1dB 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 92.1dB μ V/m at 3m in frequency 2.4GHz, thus;

The EIRP = $[(FS * D)^2 * 1000 / 30] = 0.487mW$

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

Conducted Power = 0.487mW.

The SAR Exclusion Threshold Level:

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

= $3.0 * 5 / \text{sqrt}(2.477)$ 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.