

Analysis Report

Report No.: 15070062HKG-001R1

The Equipment Under Test (EUT) is a transmitter of a remote control car operating at 27.145 MHz as dictated by a crystal. The EUT is powered by a 9VDC source (1 x 9.0V block size battery). The EUT has two sticks for controlling the car to move forward, backward, left and right. A twist control of the transmitter to control twisting of the car.

After switching ON the EUT and the receiver of the remote car, the car will be activated by press either one of the button.

Antenna Type: External, telescope type antenna with unique antenna connector

Antenna Gain: 0dBi

Nominal rated field strength: 67.9dB 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 70.9dB μ V/m at 3m in frequency 27.145MHz, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30] = 0.003691\text{mW}$

Conducted power = Radiated Power (EIRP) – Antenna Gain

So;

Conducted Power = 0.003691mW.

The SAR Exclusion Threshold Level for 27.145MHz when the minimum test separation distance is < 50mm:

= $[474 \cdot (1 + \log_{10}(100/f(\text{MHz})))]/2$

= 371.2mW

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.