

Analysis Report

Report No.: 13050290HKG-001

The Equipment Under Test (EUT) is a transmitter of a RC Car system, which is operating at 27.145MHz as dictated by a crystal. The EUT is powered by 1 x 9.0 V Alkaline battery. The EUT has a control key only.

After switching ON the EUT and its corresponding receiver (i.e. car), activating the control key on the EUT can control the receiver moving forward and backward.

Antenna Type: External, Integral

Antenna Gain: 0dB

Nominal rated field strength: 36.5dB 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 39.5 dB μ V/m at 3m in frequency 27.145MHz, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30] = 2.67\text{nW}$

Conducted power = Radiated Power (EIRP) - Antenna Gain

So;

Conducted Power = 2.67nW.

The SAR Exclusion Threshold Level:

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

= 371.2 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.