

Analysis Report

The Equipment Under Test (EUT) is a 2.4GHz transceiver, which was designed to be operated at the frequency range of 2410-2475 MHz with 1 MHz channel spacing.

The EUT is powered by 6.4V rechargeable battery, after being paired with the controller, it can be controlled to move forward/ backward/ leftward/ rightward.

Antenna Type: Internal integral antenna

Antenna Gain: 0dBi

Nominal rated field strength: 88.1 dB 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 91.1dB μ V/m at 3m in frequency 2.4GHz, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30] = 0.386\text{mW}$

Conducted power = Radiated Power (EIRP) – Antenna Gain

So;

Conducted Power = 0.368mW.

The SAR Exclusion Threshold Level:

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

= $3.0 \cdot 5 / \sqrt{2.480} \text{ mW}$

= 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.