

Analysis Report

The Equipment Under Test (EUT) is a portable 2.4GHz Transceiver (controller Unit) for a RC Tank operated at 2409.5, 2419.5, 2429.5 and 2475.5MHz. The EUT is powered by 4 X 1.5V AA batteries. After switch on the EUT and paired with RC Tank, the EUT can be controlled to move forward, backward, turning left/right direction by the controller. The EUT is equipped with LCD screen and the Tank equipped with camera, There is live streaming on the LCD screen when the EUT is paired with Tank. A portable SD memory card stores in the Tank and able to record video.

Antenna Type: External integral antenna

Antenna Gain: 0dBi

Nominal rated field strength: 99.1dB μ V/m at 3m

Maximum allowed field strength of production tolerance: +/- 2dB

According to the KDB 447498:

Based on the Maximum allowed field strength of production tolerance was 101.1dB μ V/m at 3m in frequency 2.4GHz, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30] = 3.865\text{mW}$

Conducted power = Radiated Power (EIRP) – Antenna Gain

So;

Conducted Power = 3.865mW.

The SAR Exclusion Threshold Level:

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

GHz) = $3.0 \cdot 5 / \sqrt{2.475} \text{ mW}$

= 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.