

Analysis Report

The Equipment Under Test (EUT) is a 2.4GHz Transmitter (Wayne Tower). The EUT is powered by 3.0 VDC (2 x 1.5V AA batteries). The 2.4GHz RF module in the EUT is operating at the frequencies 2425MHz, 2431MHz, 2434MHz and 2445MHz (4 Channels). After turning the Power Pad on (Wayne Tower) clockwise, the copter on the corresponding transceiver (i.e. Tower Arm) spin and fly.

Antenna Type: Internal antenna

Antenna Gain: 0dBi

Nominal rated field strength: 93.2 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 96.2dB μ V/m at 3m in frequency 2.4GHz, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30] = 1.251\text{mW}$

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

Conducted Power = 1.251mW.

The SAR Exclusion Threshold Level:

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

= $3.0 \cdot 5 / \text{sqrt}(2.445) \text{ mW}$

= 9.59 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.