

INTERTEK TESTING SERVICES

RF Exposure

The Equipment under Test (EUT) is a Control unit for 1:10 Radio Control Vehicle Collection model: 81019 (14047/81021) operating at 2.4GHz band. It is powered by DC 3.0V (2 x 1.5V AA batteries). For more detail information pls. refer to the user manual.

Antenna Type: Integral antenna.

Antenna Gain: 0dBi.

The normal radiated output power (e.i.r.p) is: -1.5dBm (tolerance: +/- 3dB).

The normal conducted output power is -1.5dBm (tolerance: +/- 3dB).

Modulation Type: GFSK.

According to the KDB 447498:

The Maximum peak radiated emission for the EUT is 94.1dB μ V/m at 3m in the frequency 2440MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -1.13dBm

which is within the production variation.

The Minimum peak radiated emission for the EUT is 90.9dB μ V/m at 3m in the frequency 2404MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -4.33dBm

which is within the production variation.

The maximum conducted output power specified is 1.5dBm = 1.4mW

The source- based time-averaging conducted output power

= $1.4 \cdot \text{Duty Cycle}$ mW < 1.4mW (Duty Cycle < 100%)

The SAR Exclusion Threshold Level:

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

= $3.0 \cdot 5 / \text{sqrt}(2.479)$ mW

= 9.5 mW

Since the source-based time-averaging conducted output power is well below the SAR low threshold level, so the EUT is considered to comply with SAR requirement without testing.