

INTERTEK TESTING SERVICES

RF Exposure

The equipment under test (EUT) is a Toy RC Gravity Rover operating at 2.4G Band. The EUT can be powered by DC 3.7V (1 x 3.7V rechargeable battery). Once use the USB cable charging to the EUT, the wireless function will be disabled. 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: -15.0dBm (tolerance: +/- 3dB).

The normal conducted output power is -15.0dBm (tolerance: +/- 3dB).

Modulation Type: GFSK.

According to the KDB 447498 V06:

The Maximum peak radiated emission for the EUT is 82.0dBμV/m at 3m in the frequency 2410.110MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -13.23dBm

which is within the production variation.

The Minimum peak radiated emission for the EUT is 78.9dBμV/m at 3m in the frequency 2470.110MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -16.33dBm

which is within the production variation.

The maximum conducted output power specified is -12dBm= 0.063mW

The source- based time-averaging conducted output power
=0.063mW

The SAR Exclusion Threshold Level:

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

= $3.0 * 5 / \text{sqrt}(2.470.110)$ mW

= 9.54 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.