

INTERTEK TESTING SERVICES

RF Exposure

The equipment under test (EUT) is a Rc ROCK CRAWLER XXXL operating at 2.4G Band. The EUT can be powered by DC 6.4V (1 x 6.4V rechargeable battery). For more detail information pls. refer to the user manual.

Antenna Type: Integral antenna.

Antenna Gain: 0dBi.

The normal peak radiated output power (e.i.r.p) is: 5.0dBm (tolerance: +/- 3dB).

The normal peak conducted output power is 5.0dBm (tolerance: +/- 3dB).

Modulation Type: GFSK.

According to the KDB 447498:

The Maximum peak radiated emission for the EUT is 103.0dB μ V/m at 3m in the frequency 2410MHz

The EIRP = [(FS*D) ^2 / 30] mW = 7.77dBm

which is within the production variation.

The Minimum peak radiated emission for the EUT is 100.8dB μ V/m at 3m in the frequency 2475MHz

The EIRP = [(FS*D) ^2 / 30] mW = 5.57dBm

which is within the production variation.

The maximum conducted output power specified is 8dBm= 6.310mW

The source- based time-averaging conducted output power =6.310* Duty cycle mW <6.310 mW(Duty cycle <100%)

The SAR Exclusion Threshold Level:

= 3.0 * (min. test separation distance, mm) / sqrt(freq. in GHz)

= 3.0 * 5 / sqrt (2.475) mW

= 9.53 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.

The duty cycle is simply the on-time divided by the period:

The duration of one cycle = 31.9565ms

Effective period of the cycle = 0.4348ms x 2 = 0.8696ms

DC =0.8696ms / 31.9565ms =0.0272 or 2.72%