

# INTERTEK TESTING SERVICES

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## RF Exposure

The equipment under test (EUT) is a 1:10 Elite Trophy Trucks X2 Assortment (18" / 46cm) operating at 2.4G Band. The EUT can be powered by DC 9.6V (1 x 9.6V rechargeable battery). For more detail information pls. refer to the user manual.

Antenna Type: Integral antenna

Modulation Type: GFSK

Antenna Gain: 0dBi

The nominal conducted output power specified: -7.7 dBm ( $\pm 3$ dB)

The nominal radiated output power (e.i.r.p) specified: -7.7 dBm ( $\pm 3$ dB)

According to the KDB 447498:

The Maximum peak radiated emission for the EUT is 87.5 dB $\mu$ V/m at 3m in the frequency 2410MHz

The EIRP = [(FS\*D) ^2 / 30] mW = -7.73dBm

which is within the production variation.

The Minimum peak radiated emission for the EUT is 86.9 dB $\mu$ V/m at 3m in the frequency 2475MHz

The EIRP = [(FS\*D) ^2 / 30] mW = -8.33dBm

which is within the production variation.

The maximum conducted output power specified is -4.7dBm= 0.339mW

The SAR Exclusion Threshold Level:

$$\begin{aligned} P_{th}(mW) &= ERP_{20cm} * (d/20cm)^x \quad (X = -\log_{10} \left( \frac{60}{ERP_{20cm} \sqrt{f}} \right)) \\ &= 3060 * (0.5/20)^{1.9} mW \\ &= 2.72 mW \end{aligned}$$

Since max. power of the source-based time-averaging conducted output power and effective radiated power (ERP) is well below the SAR low threshold level, so the EUT is considered to comply with SAR requirement without testing.

Note: EIRP is higher than ERP, thus EIRP is compared with the Exclusion Threshold.