

INTERTEK TESTING SERVICES

RF Exposure

The equipment under test (EUT) is an Toy RC Baja Street Racer operating at 2.4G Band. The EUT can be powered by DC 9.0V (6 x 1.5V AAA batteries). And the RF function will be shut down and it can't transmit RF signals while charging. 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: -2.0dBm (tolerance: +/- 3dB).

The normal conducted output power is -2.0dBm (tolerance: +/- 3dB).

Modulation Type: GFSK.

According to the KDB 447498:

The Maximum peak radiated emission for the EUT is 93.4 dBμV/m at 3m in the frequency 2420MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -1.83dBm

which is within the production variation.

The Minimum peak radiated emission for the EUT is 90.7dBμV/m at 3m in the frequency 2471MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -4.53dBm

which is within the production variation.

The maximum conducted output power specified is 1.0dBm= 1.259mW

The source- based time-averaging conducted output power =1.259mW

The SAR Exclusion Threshold Level:

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

= $3.0 \cdot 5 / \text{sqrt}(2.471)$ 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.