INTERTEK TESTING SERVICES

Analysis Report

The equipment under test (EUT) is a portable transmitter for a Toy RC Boxing Robots operating at 49.860 MHz which is controlled by a crystal. The EUT is powered by a 9.0V AF22 size battery. For more detail information pls. refer to the user manual.

Antenna Type: Integral antenna
Antenna Gain: 0dBi

The nominal conducted output power specified: -23.00dBm (+/- 3dB)

The nominal radiated output power (e.r.p) specified: -25.15dBm (+/- 3dB)

Modulation Type: Pulse modulation

According to the KDB 447498:

> The worst-case peak radiated emission for the EUT is 72.2dBµV/m at 3m in the frequency 49.860MHz
> The EIRP = [(FS*D) ^2 / 30] mW = -23.03dBm
> The ERP = EIRP – 2.15 = -25.18 dBm
> which is within the production variation.

> The maximum conducted output power specified is -20dBm = 0.01mW
> The source- based time-averaging conducted output power
> = 0.01 * Duty Cycle mW= 0.006 mW

> The SAR Exclusion Threshold Level for 49.860MHz when the minimum test separation distance is < 50mm:
> = 474 * [1 + log(100/f(MHz)]/2
> =308.6mW

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 duration of one cycle   = 43.20 ms
Effective period of the cycle = 1.30 ms x 4 + 0.50 ms x 40 = 25.20 ms
DC = 25.20 ms / 43.20 ms = 0.5833 or 58.33%

FCC ID: TB7DXTOY15459449G