

INTERTEK TESTING SERVICES

Analysis Report

The equipment under test (EUT) is a transmitter for an Toy RC Monster Spinning Car operating at 27.145 MHz which is controlled by a crystal. The EUT is powered by one 9.0V 6F22 battery. For more detail information pls. refer to the user manual.

Antenna Type: dedicated antenna

Antenna Gain: 0dBi

Modulation Type: Pulse modulation

The nominal conducted output power specified: -35.0dBm (+/- 3dB)

The nominal radiated output power (e.r.p) specified: -37.15dBm (+/- 3dB)

According to the KDB 447498:

The worst-case peak radiated emission for the EUT is 63.29dBuV/m at 3m in the frequency 27.145MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -31.94dBm

The ERP = EIRP - 2.15 = -34.09dBm

which is within the production variation.

The maximum conducted output power specified is -32.0dBm = 0.0006mW

The source-based time-averaging conducted output power
= 0.0006 * Duty Cycle mW < 0.0006mW (Duty Cycle < 100%)

Since the source-based time-averaging conducted output power is well below the SAR low threshold level of 1mW, so the EUT is considered to comply with SAR requirement without testing.

Transmitter Duty Cycle Calculation

The duration of one cycle = 67.971ms

Effective period of the cycle = 1.449ms x 4 + 0.58ms x 64 = 42.916ms

DC = 42.916ms / 67.971ms = 0.6314 or 63.14%

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