

INTERTEK TESTING SERVICES

Analysis Report

The equipment under test (EUT) is a transmitter for a Racer With Driver RC operating at 49.860 MHz which is controlled by a crystal. The EUT is powered by two 1.5V AA batteries. For more detail information pls. refer to the user manual.

Antenna Type: integral antenna

Antenna Gain: 0dBi

Modulation Type: Pulse modulation

The nominal conducted output power specified: -39.0dBm (+/- 3dB)

The nominal radiated output power (e.r.p) specified: -41.15dBm (+/- 3dB)

According to the KDB 447498 V06:

The worst-case peak radiated emission for the EUT is 55.3dBuV/m at 3m in the frequency 49.86MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -39.93dBm

The ERP = EIRP - 2.15 = -42.08dBm

which is within the production variation.

The maximum conducted output power specified is -36.0dBm = 0.0003mW

The source-based time-averaging conducted output power = 0.0003mW

The SAR Exclusion Threshold Level for 49.860MHz when the minimum test separation distance is < 50mm:

= $474 * [1 + \log(100/f(\text{MHz})]/2$

= 308.6 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.

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