

INTERTEK TESTING SERVICES

Analysis Report

The equipment under test (EUT) is a GuruGear 2.4GHz wireless mouse operating in 2402.65-2480.65MHz. The EUT is powered by DC 5V via USB port. For more detail information pls. refer to the user manual.

Modulation Type: $\pi/4$ DQPSK
Antenna Type: Integral antenna
Antenna Gain: 1.92 dBi

The nominal radiated output power (e.i.r.p) specified: -9dBm(Tolerance: +/-5dB)
The nominal conducted output power specified: -10.92(Tolerance: +/-5dB)

According to the KDB 447498:

The maximum radiated emission for the EUT is 83.1 dB μ V/m at 3m in the frequency 2.44165GHz = $[(FS \cdot D)^2 / 30]$ mW
= -12.1 dBm which is within the production variation

The minimum radiated emission for the EUT is 81.9 dB μ V/m for at 3m in the frequency 2.40265GHz = $[(FS \cdot D)^2 / 30]$ mW
= -13.3 dBm which is within the production variation

The maximum radiated output power specified is -5.92dBm = 0.26mW
The source- based time-averaging conducted output power
= 0.26 * Duty cycle mW \leq 0.26 mW (Duty Cycle \leq 100%)

The SAR Exclusion Threshold Level:
= 3.0 * (min. test separation distance, mm) / sqrt(freq. in GHz)
= 3.0 * 5 / sqrt(2.48065) mW
= 9.52 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.