

INTERTEK TESTING SERVICES

RF Exposure

The equipment under test (EUT) is a wireless optical mouse (Dongle Unit). The EUT was powered by USB port. For more detail information pls. refer to the user manual.

Antenna Type: Integral antenna.

Antenna Gain: -1dBi.

The nominal radiated output power (e.i.r.p) specified: -17dBm (+/- 3dB)

The normal conducted output power is -16 dBm (tolerance: +/- 3dB).

Modulation Type: GFSK

According to the KDB 447498:

The maximum peak radiated emission for the EUT is 76.0dB μ V/m at 3m in the frequency 2409MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -19.2dBm

which is within the production variation.

The minimum peak radiated emission for the EUT is 75.7dB μ V/m at 3m in the frequency 2476MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -19.5dBm

which is within the production variation.

The maximum conducted output power specified is -13dBm = 0.05mW

The source- based time-averaging conducted output power

= $0.05 \cdot \text{Duty Cycle mW} \leq 0.05\text{mW}$ (Duty Cycle $\leq 100\%$)

The SAR Exclusion Threshold Level:

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

= $3.0 \cdot 5 / \sqrt{2.476}$ mW

= 9.53 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.