

INTERTEK TESTING SERVICES

RF Exposure

The equipment under test (EUT) is a HOT PINK WIRELESS MOUSE with Bluetooth 5.2 BLE function operating in 2402-2480MHz. The EUT is powered by DC 1.5V by AA battery. For more detail information pls. refer to the user manual.

Antenna Type: Integral antenna

Modulation Type: GFSK

Antenna Gain: -5.1dBi Max

The nominal radiated output power (e.i.r.p) specified: -4.1dBm (+/-2dB)

The nominal conducted output power specified: 1.0 dBm (+/-2dB)

According to the KDB 447498 V07:

The maximum peak radiated emission for the EUT is 90.7 dBμV/m at 3m in the frequency 2480MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -4.53dBm

which is within the production variation.

The minimum peak radiated emission for the EUT is 90.3 dBμV/m at 3m in the frequency 2402MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -4.93dBm

which is within the production variation.

The maximum conducted output power specified is 3.0dBm = 1.995 mW

The maximum ERP specified is 3.0dBm - 2.15dB - 5.1dBi = -4.25dBm = 0.376mW

The SAR Exclusion Threshold Level:

$$\begin{aligned} P_{th}(mW) &= ERP_{20cm} * (d/20cm)^x \quad (X = -\log_{10} \left(\frac{60}{ERP_{20cm} \sqrt{f}} \right)) \\ &= 3060 * (0.5/20)^{1.9} mW \\ &= 2.72 mW \end{aligned}$$

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.