

INTERTEK TESTING SERVICES

RF Exposure

The equipment under test (EUT) is a Wired/Wireless Fusion Arcade Fightstick with Bluetooth function operating in 2402-2480MHz. The EUT is powered by DC 3.0V (2 x 1.5V AA batteries). Once a USB cable is inserted into the micro USB port, the Bluetooth function will be closed. For more detail information pls. refer to the user manual.

Antenna Type: Integral antenna

Modulation Type: GFSK

Antenna Gain: -3.5dBi Max

The normal radiated output power (e.i.r.p) is: -4.0dBm (tolerance: +/- 3dB).

The normal conducted output power is -0.5dBm (tolerance: +/- 3dB).

According to the KDB 447498:

The Maximum peak radiated emission for the EUT is 91.8 dBμV/m at 3m in the frequency 2402MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -3.43dBm

which is within the production variation.

The Minimum peak radiated emission for the EUT is 89.6 dBμV/m at 3m in the frequency 2441MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -5.63dBm

which is within the production variation.

The maximum conducted output power specified is 2.5dBm= 1.8mW

The source- based time-averaging conducted output power
= $1.8 \cdot \text{Duty cycle}$ mW = 1.8 mW (Duty cycle = 100%)

The SAR Exclusion Threshold Level:

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

= $3.0 \cdot 5 / \sqrt{2.480}$ 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.