

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 dB μ V/m at 3m in the frequency 2402MHz

The EIRP = $[(FS^*D)^2 / 30] \text{ mW} = -3.43\text{dBm}$
which is within the production variation.

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

The EIRP = $[(FS^*D)^2 / 30] \text{ mW} = -5.63\text{dBm}$
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
 $= 1.8 * \text{Duty cycle mW} = 1.8 \text{ mW} (\text{Duty cycle} = 100\%)$

The SAR Exclusion Threshold Level:

$= 3.0 * (\text{min. test separation distance, mm}) / \text{sqrt(freq. in GHz)}$
 $= 3.0 * 5 / \text{sqrt (2.480)} \text{ mW}$
 $= 9.53 \text{ mW}$

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.