

# INTERTEK TESTING SERVICES

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## RF Exposure

The equipment under test (EUT) is a Flexible Bluetooth Keyboard. The EUT can connect with your iPhone or iPad via Bluetooth function. It is operated by internal rechargeable battery and can be charged by PC or USB charger with DC 5V, Output. For more detail information pls. refer to the user manual.

Modulation Type: GFSK.

Bluetooth Version: 3.0.

Antenna Type: Integral antenna.

Antenna Gain: 1.2dBi.

The nominal conducted output power specified: -2dBm (+/-3dB).

The nominal radiated output power (e.i.r.p) specified: -0.8dBm (+/- 3dB).

According to the KDB 447498:

The minimum peak radiated emission for the EUT is 92.1dB $\mu$ V/m at 3m in the frequency 2441MHz

The EIRP = [(FS\*D) ^2 / 30] mW = -3.1dBm

which is within the production variation.

The maximum peak radiated emission for the EUT is 93.5dB $\mu$ V/m at 3m in the frequency 2402MHz

The EIRP = [(FS\*D) ^2 / 30] mW = -1.7dBm

which is within the production variation.

The maximum conducted output power specified is 1dBm = 1.3mW

The source- based time-averaging conducted output power

= 1.3 \* Duty Cycle mW= 1.1 mW

The SAR Exclusion Threshold Level:

= 3.0 \* (min. test separation distance, mm) / sqrt(freq. in GHz)

= 3.0 \* 5 / sqrt (2.480) mW

= 9.5 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.

### Transmitter Duty Cycle Calculation

Based on the Bluetooth Specification (BT version: 3.0), the duty factor is dependent of packet type (DH1, DH3 and DH5).For one period for a pseudo-random hopping through all 79 RF channels, for DH5:

One hop set consists of 5 TX slot and 1 RX slot.

Duty factor = 5 / 6 = 0.833

This requirement is according to KDB 865664 D02