

# INTERTEK TESTING SERVICES

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## RF Exposure

The equipment under test (EUT) is a Bluetooth keyboard case with Bluetooth function. The EUT was powered by DC 3.7V battery. For more detail information pls. refer to the user manual.

Modulation Type: GFSK

Bluetooth Version: 5.0 Single Mode (BLE mode)

Antenna Type: PCB antenna.

Antenna Gain: 1.78dBi.

The nominal conducted output power specified: -4.28dBm (+/-2dB).

The nominal radiated output power (e.i.r.p) specified: -2.5dBm (+/- 2dB)

According to the KDB 447498:

The maximum peak radiated emission for the EUT is 92.4 dBμV/m at 3m in the frequency 2402MHz.

The EIRP =  $[(FS \cdot D)^2 / 30]$  mW = -2.83dBm  
which is within the production variation.

The minimum peak radiated emission for the EUT is 90.9dBμV/m at 3m in the frequency 2440MHz.

The EIRP =  $[(FS \cdot D)^2 / 30]$  mW = -4.33dBm  
which is within the production variation.

The maximum conducted output power specified is -2.28dBm = 0.59mW

The source- based time-averaging conducted output power

= 0.59 \* Duty factor mW (where Duty Factor ≤ 1)

= 0.59 mW

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.