

## INTERTEK TESTING SERVICES

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### RF Exposure

The equipment under test (EUT) is a Powerracer Bluetooth with Bluetooth function operating in 2402-2480MHz. The EUT is powered by DC 3.2V ( 1 x 3.2V rechargeable battery). And the RF function will be shut down and it can't transmit RF signals while charging. For more detail information pls. refer to the user manual.

Antenna Type: Integral antenna

Modulation Type: GFSK

Antenna Gain: 0dBi Max

Bluetooth Version: 5.3 (BLE mode)

The normal radiated output power (e.i.r.p) is: -7.0dBm (tolerance: +/- 3dB).

The normal conducted output power is -7.0dBm (tolerance: +/- 3dB).

According to the KDB 447498V06 :

The Maximum peak radiated emission for the EUT is 89.5 dB $\mu$ V/m at 3m in the frequency 2480MHz

The EIRP = [(FS\*D) ^2 / 30] mW = -5.73dBm

which is within the production variation.

The Minimum peak radiated emission for the EUT is 85.8dB $\mu$ V/m at 3m in the frequency 2402MHz

The EIRP = [(FS\*D) ^2 / 30] mW = -9.43dBm

which is within the production variation.

The maximum conducted output power specified is -4.0dBm= 0.398mW

The source- based time-averaging conducted output power =0.398\* Duty cycle mW <0.398 mW(Duty cycle <100%)

The SAR Exclusion Threshold Level:

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

= 3.0 \* 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.

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