

# INTERTEK TESTING SERVICES

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## RF Exposure

The equipment under test (EUT) is a wireless stereo earbud with Bluetooth function operated at 2.4GHz band. The EUT is powered by DC 3.7V, 110mAh new rechargeable battery which can be charged by USB port (DC 5V). The USB port is only use for charging purpose. The EUT cannot operate when charging. For more detail information pls. refer to the user manual.

Modulation Type: GFSK

Bluetooth Version: 4.1 BLE (single mode)

Antenna Type: Integral antenna.

Antenna Gain: 2.5 dBi Max

The nominal radiated output power (e.i.r.p) specified: 6.5dBm (Tolerance: +/- 3dB)

The nominal conducted output power specified: 4dBm (Tolerance: +/- 3dB)

According to the KDB 447498:

The maximum peak radiated emission for the EUT is 104.4dB $\mu$ V/m at 3m in the frequency 2440MHz.

The EIRP =  $[(FS \cdot D)^2 / 30]$  mW = 9.17dBm

which is within the production variation.

The minimum peak radiated emission for the EUT is 103.4dB $\mu$ V/m at 3m in the frequency 2402MHz.

The EIRP =  $[(FS \cdot D)^2 / 30]$  mW = 8.17dBm

which is within the production variation.

The maximum conducted output power specified is 7dBm = 5.01mW

The source- based time-averaging conducted output power

= 5.01 \* Duty factor mW (where Duty Factor  $\leq$  1)

= 5.01 mW

The SAR Exclusion Threshold Level:

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

= 3.0 \* 5 / sqrt (2.480) mW

= 9.53 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.