

INTERTEK TESTING SERVICES

RF Exposure

The equipment under test (EUT) is a WIRELESS ON-EAR HEADPHONES with Bluetooth 5.0 (Single Mode EDR) function operating in 2402-2480MHz. The EUT is powered by DC 3.7V by rechargeable battery. The EUT cannot transmit during charging. Once a 3.5mm audio jack is inserted into the Aux in port, the device will automatically be switched to Aux-in function. For more detail information pls. refer to the user manual.

Modulation Type: GFSK, $\pi/4$ -DQPSK and 8-DPSK

Bluetooth Version: 5.0 (Single Mode EDR)

Antenna Type: Integral antenna.

Antenna Gain: 2.86dBi Max

The nominal conducted output power specified: 0dBm (+/-3dB).

The nominal radiated output power (e.i.r.p) specified: 2.86dBm (+/- 3dB).

According to the KDB 447498:

The maximum peak radiated emission for the EUT is 98.8dB μ V/m at 3m in the frequency 2402MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = 3.57dBm

which is within the production variation.

The minimum peak radiated emission for the EUT is 97.4dB μ V/m at 3m in the frequency 2480MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = 2.17dBm

which is within the production variation.

The maximum conducted output power specified is 3dBm = 2mW

The source- based time-averaging conducted output power

= 2 * Duty factor mW (where Duty Factor ≤ 1)

= 2mW

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.