

INTERTEK TESTING SERVICES

RF Exposure

The equipment under test (EUT) is a Wireless Headphones with Bluetooth function. The EUT is powered by a DC3.7V 800mAh rechargeable lithium battery which is charged by USB port (DC 5V). The EUT can be paired with mobile phone as a head-set for phone call functions and also as a headphones for listening music. Plug in audio cable to AUX IN jack will convert the wireless headphones to a wired headphones for music & phone call application, the wireless function is disabled with audio cable plugged in. The EUT can't operate while charging. Please refer to user manual for more details.

Modulation Type: GFSK, $\pi/4$ DQPSK, 8DPSK for BT 2.1+EDR & GFSK for BT 4.0 BLE

Bluetooth Version: 2.1+EDR&4.0

Antenna Type: Integral antenna

Antenna Gain: 0dBi

The nominal radiated output power (e.i.r.p) specified: -1dBm (Tolerance: +/- 4dB)

The nominal conducted output power specified: -1dBm (Tolerance: +/- 4dB)

According to the KDB 447498:

The maximum peak radiated emission for the EUT is 91.2dB μ V/m at 3m in the frequency 2480MHz of BT 2.1 +EDR

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -4.0 dBm
which is within the production variation.

The minimum peak radiated emission for the EUT is 90.3 dB μ V/m at 3m in the frequency 2440MHz of BT 4.0 BLE

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -4.9 dBm
which is within the production variation.

The maximum conducted output power specified is 3.0dBm = 2.0mW

The source- based time-averaging conducted output power
= 2.0 * Duty factor mW (where Duty Factor ≤ 1)
= 2.0 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.