

INTERTEK TESTING SERVICES

RF Exposure

The equipment under test (EUT) is a Bluetooth headset with Bluetooth function operating in 2402-2480MHz. The EUT is powered by DC 3.7V from rechargeable battery which can be charged by USB port. For more detail information pls. refer to the user manual.

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

Bluetooth Version: 4.1 (without BLE)

Antenna Type: Integral antenna

Antenna Gain: 0 dBi Max

The nominal radiated output power (e.i.r.p) specified: -1dBm (Tolerance: +/- 3dB)

The nominal conducted output power specified: -1dBm (Tolerance: +/- 3dB)

According to the KDB 447498:

The maximum peak radiated emission for the EUT is 96.9 dB μ V/m at 3m in the frequency 2441MHz of BT 4.1

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = 1.7 dBm
which is within the production variation.

The minimum peak radiated emission for the EUT is 96.6 dB μ V/m at 3m in the frequency 2480MHz of BT 4.1

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = 1.4 dBm
which is within the production variation.

The maximum conducted output power specified is 2dBm = 1.585 mW

The source-based time-averaging conducted output power
= 1.585 * Duty factor mW (where Duty Factor ≤ 1)
= 1.585 mW

The SAR Exclusion Threshold Level:

= $3.0 * (\text{min. test separation distance, mm}) / \sqrt{\text{freq. in GHz}}$
= $3.0 * 5 / \sqrt{2.480}$ 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.