

INTERTEK TESTING SERVICES

RF Exposure

The equipment under test (EUT) is an Auto Swing Chair with Bluetooth 5.1 (Single Mode EDR) function operating in 2402-2480MHz. The EUT is powered by DC 5.0V by adaptor. For more detail information pls. refer to the user manual.

Antenna Type: Integral antenna

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

Antenna Gain: -0.58dBi Max

Bluetooth Version: 5.1 (Single Mode EDR)

The normal radiated output power (e.i.r.p) is: -1.0dBm (tolerance: +/- 3dB).

The normal conducted output power is -1.58dBm (tolerance: +/- 3dB).

According to the KDB 447498 D01 V06 section 4.3:

The Maximum peak radiated emission for the EUT is 94.5dB μ V/m at 3m in the frequency 2480MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -0.73dBm
which is within the production variation.

The Minimum peak radiated emission for the EUT is 91.6dB μ V/m at 3m in the frequency 2441MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -3.63dBm
which is within the production variation.

The maximum conducted output average power specified is 1.42dBm = 1.387mW
The source- based time-averaging conducted output power
= 1.387 mW

The SAR Exclusion Threshold Level:

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

= $3.0 \cdot 5 / \text{sqrt} (2.480)$ 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.