

INTERTEK TESTING SERVICES

RF Exposure

The equipment under test (EUT) is a Digital Dartboard with Bluetooth 5.4 BLE function operating in 2402-2480MHz. The EUT is powered by DC 3.0V (2 x 1.5V AA batteries). For more detail information pls. refer to the user manual.

Antenna Type: Integral antenna

Modulation Type: GFSK

Antenna Gain: 1.3dBi

Bluetooth Version: 5.4 BLE (Single Mode)

The normal radiated output power (e.i.r.p) is: 2.0dBm (tolerance: +/- 3dB).

The normal conducted output power is 0.7dBm (tolerance: +/- 3dB).

Modulation Type: GFSK.

According to the KDB 447498 D01 V06 section 4.3:

The Maximum peak radiated emission for the EUT is 99.4dBμV/m at 3m in the frequency 2480MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = 4.17dBm

which is within the production variation.

The Minimum peak radiated emission for the EUT is 98.5dBμV/m at 3m in the frequency 2402MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = 3.27dBm

which is within the production variation.

The maximum conducted output power specified is 3.7dBm = 2.344mW

The source- based time-averaging conducted output power
= 2.344mW

The SAR Exclusion Threshold Level:

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

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