

INTERTEK TESTING SERVICES

RF Exposure

The equipment under test (EUT) is an Interface with Bluetooth 5.0 BLE function operating in 2402-2480MHz. The EUT is powered by DC 4.5V (3 x 1.5V AA batteries). For more detailed information pls. refer to the user manual.

Antenna Type: Integral antenna.

Antenna Gain: -0.58dBi.

The normal radiated output power (e.i.r.p) is: -9.0dBm (tolerance: +/- 3dB).

The normal conducted output power is -8.42dBm (tolerance: +/- 3dB).

Modulation Type: GFSK.

According to the KDB 447498:

The Maximum peak radiated emission for the EUT is 87.6dB μ V/m at 3m in the frequency 2402MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -7.63dBm
which is within the production variation.

The Minimum peak radiated emission for the EUT is 85.1dB μ V/m at 3m in the frequency 2480MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -10.13dBm
which is within the production variation.

The maximum conducted output power specified is -5.42dBm= 0.287mW

The source- based time-averaging conducted output power
=0.287mW

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.