

INTERTEK TESTING SERVICES

RF Exposure

The equipment under test (EUT) is a Wireless Sensor Pad with BT 4.0 BLE function operating in 2402-2480MHz. The EUT is powered by DC 3V by battery; For more detail information pls. refer to the user manual.

Modulation Type: GFSK.

Bluetooth Version: BT 4.0 BLE(single mode)

Antenna Type: Integral antenna.

Antenna Gain: 0dBi.

The nominal conducted output power specified: -7dBm (+/-3dB).

The nominal radiated output power (e.i.r.p) specified: -7dBm (+/- 3dB).

According to the KDB 447498:

The maximum peak radiated emission for the EUT is 86.7dB μ V/m at 3m in the frequency 2480MHz

The EIRP = $[(FS * D)^2 / 30]$ mW = -8.53dBm
which is within the production variation.

The minimum peak radiated emission for the EUT is 85.5dB μ V/m at 3m in the frequency 2402MHz

The EIRP = $[(FS * D)^2 / 30]$ mW = -9.73dBm
which is within the production variation.

The maximum conducted output power specified is -4dBm = 0.4mW

The source- based time-averaging conducted output power
= 0.4 * Duty factor mW (where Duty Factor \leq 1)
= 0.4 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.