

INTERTEK TESTING SERVICES

Radiofrequency radiation exposure evaluation

The equipment under test (EUT) is a Bluetooth remote control with Bluetooth 5.2 (Single Mode) function operating in 2402-2480MHz. This device is powered by DC 3.0V(2*1.5V LR03 batteries). For more detailed information, please refer to the user manual. refer to the user manual.

Bluetooth Version: 5.2 BLE (Single Mode)

Antenna Type: Integral antenna

Modulation Type: GFSK

Antenna Gain: 1.5dBi Max

The nominal radiated output power (e.i.r.p) specified: 0dBm (tolerance: ± 3 dB).

The nominal conducted output power specified: -1.5dBm (tolerance: ± 3 dB).

According to the KDB 447498 V06:

The Maximum peak radiated emission for the EUT is 97.1 dB μ V/m at 3m in the frequency 2402MHz

The EIRP = $[(FS * D)^2 / 30]$ mW = 1.87dBm
which is within the production variation.

The Minimum peak radiated emission for the EUT is 93.1 dB μ V/m at 3m in the frequency 2480MHz

The EIRP = $[(FS * D)^2 / 30]$ mW = -2.13dBm
which is within the production variation.

The maximum conducted output power specified is 1.5dBm= 1.413mW
The source- based time-averaging conducted output power =1.413mW

The SAR Exclusion Threshold Level:

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