

INTERTEK TESTING SERVICES

RF Exposure

The Equipment Under Test (EUT) is a Remote control which has Bluetooth function. The EUT is powered by DC 3.7V by rechargeable battery or DC 5V from USB Port. For more detailed features description, please refer to the user's manual.

Bluetooth Version: 5.0 (Dual mode)

Antenna Type: Integral antenna.

Antenna Gain: -0.58dBi.

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

The nominal conducted output power specified: 5.58dBm (+/-3dB)

The nominal radiated output power (e.i.r.p) specified: 5dBm (+/- 3dB)

According to the KDB 447498:

The maximum peak radiated emission for the EUT is 102.7dB μ V/m at 3m in the frequency 2402MHz(EDR mode)

The EIRP = $[(FS * D)^2 / 30]$ mW = 7.47dBm

which is within the production variation.

The minimum peak radiated emission for the EUT is 100.0dB μ V/m at 3m in the frequency 2440MHz(BLE mode)

The EIRP = $[(FS * D)^2 / 30]$ mW = 4.77dBm

which is within the production variation.

The maximum conducted output power specified is 8.58 dBm = 7.21 mW

The source- based time-averaging conducted output power

= 7.21 * Duty factor mW (where Duty Factor \leq 1)

= 7.21 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.