

INTERTEK TESTING SERVICES

RF Exposure

The equipment under test (EUT) is a LED Lights Bluetooth Fidget Spinner. The EUT was powered by DC 3.7V, new rechargeable battery which was charged by USB port (DC 5V). For more detail information pls. refer to the user manual.

Modulation Type: GFSK

Bluetooth Version: 4.0 BLE(single mode)

Antenna Type: Integral antenna.

Antenna Gain: 0dBi.

The nominal conducted output power specified: -15.0dBm (+/-3dB).

The nominal radiated output power (e.i.r.p) specified: -15.0dBm (+/- 3dB)

According to the KDB 447498:

The maximum peak radiated emission for the EUT is 79.8dBμV/m at 3m in the frequency 2440MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -15.43dBm
which is within the production variation.

The minimum peak radiated emission for the EUT is 79.6dBμV/m at 3m in the frequency 2402MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -15.63dBm
which is within the production variation.

The maximum conducted output power specified is -12dBm = 0.063mW

The source- based time-averaging conducted output power
= 0.063 * Duty factor mW (where Duty Factor ≤ 1)
= 0.063 mW

The SAR Exclusion Threshold Level:

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