

INTERTEK TESTING SERVICES

RF Exposure

The equipment under test (EUT) is a Bling Disco Nutcracker with Bluetooth 5.3(EDR) function operating in 2402-2480MHz. The EUT is powered by DC 5.9V by adaptor. For more detail information pls. refer to the user manual.

Antenna Type: Integral antenna

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

Antenna Gain: 2.81dBi Max

Bluetooth Version: 5.3 (EDR)

The normal radiated output power (e.i.r.p) is: 8.0dBm (tolerance: +/- 3dB).

The normal conducted output power is 5.2dBm (tolerance: +/- 3dB).

According to the KDB 447498 V06:

The Maximum peak radiated emission for the EUT is 105.7dB μ V/m at 3m in the frequency 2402MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = 10.47dBm
which is within the production variation.

The Minimum peak radiated emission for the EUT is 105.0dB μ V/m at 3m in the frequency 2480MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = 9.77dBm
which is within the production variation.

The maximum conducted output average power specified is 8.2dBm = 6.607mW
The source- based time-averaging conducted output power = 6.607 mW

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.