

INTERTEK TESTING SERVICES

RF Exposure

The equipment under test (EUT) is a 7 ft Wicked Woods ANIMATED LED App Controlled Lethal Lily with Bluetooth 5.4 EDR and BLE 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: -0.58dBi Max

Bluetooth Version: 5.4 (EDR and BLE)

For EDR

The normal radiated output power (e.i.r.p) is: -5.0dBm (tolerance: +/- 3dB).

The normal conducted output power is -4.42dBm (tolerance: +/- 3dB).

According to the KDB 447498 V06:

The Maximum peak radiated emission for the EUT is 90.5dB μ V/m at 3m in the frequency 2402MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -4.73dBm
which is within the production variation.

The Minimum peak radiated emission for the EUT is 88.8dB μ V/m at 3m in the frequency 2480MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -6.43dBm
which is within the production variation.

The maximum conducted output average power specified is -1.42dBm = 0.721mW
The source- based time-averaging conducted output power = 0.721 mW

The SAR Exclusion Threshold Level:

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

For BLE

The normal radiated output power (e.i.r.p) is: -7.0dBm (tolerance: +/- 3dB).

The normal conducted output power is -6.42dBm (tolerance: +/- 3dB).

According to the KDB 447498 V06:

The Maximum peak radiated emission for the EUT is 87.8dB μ V/m at 3m in the frequency 2402MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -7.43dBm

which is within the production variation.

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

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -8.53dBm

which is within the production variation.

The maximum conducted output average power specified is -3.42dBm= 0.455mW

The source- based time-averaging conducted output power
=0.455 mW

The SAR Exclusion Threshold Level:

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

= $3.0 \cdot 5 / \sqrt{2.480}$ 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.