

INTERTEK TESTING SERVICES

RF Exposure

The equipment under test (EUT) is a 7W RGB Bulb operating at 2410MHz. The EUT is powered by AC 120V/60Hz. For more detail information pls. refer to the user manual.

Antenna Type: Integral antenna

Modulation Type: GFSK

Antenna Gain: 0dBi Max

The nominal radiated output power (e.i.r.p) specified: 2dBm (Tolerance: +/- 3dB)

The nominal conducted output power specified: 2dBm (Tolerance: +/- 3dB)

According to the KDB 447498:

The maximum peak radiated emission for the EUT is 95.1dBμV/m at 3m in the frequency 2410MHz.

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -0.13dBm
which is within the production variation.

The maximum conducted output power specified is 5dBm = 3.16mW

The source- based time-averaging conducted output power
= 3.16 * Duty factor mW (where Duty Factor ≤ 1)
= 3.16 mW

The SAR Exclusion Threshold Level:

= $3.0 * (\text{min. test separation distance, mm}) / \sqrt{\text{freq. in GHz}}$
= $3.0 * 5 / \sqrt{2.410}$ mW
= 9.66 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.