

INTERTEK TESTING SERVICES

RF Exposure

The equipment under test (EUT) is a 16.4FT 12V RGB Strip + RF Strip Controller operating at 2410MHz. The EUT is powered by adapter(Input: AC100-240V, 50/60Hz, 0.8A; Output: DC12V, 2000mA). 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: -6dBm (Tolerance: +/- 3dB)

The nominal conducted output power specified: -6dBm (Tolerance: +/- 3dB)

According to the KDB 447498:

The maximum peak radiated emission for the EUT is 86.8dBμV/m at 3m in the frequency 2410MHz.

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -8.43dBm
which is within the production variation.

The maximum conducted output power specified is -3dBm = 0.5mW

The source- based time-averaging conducted output power
= $0.5 \cdot \text{Duty factor mW}$ (where Duty Factor ≤ 1)
= 0.5 mW

The SAR Exclusion Threshold Level:

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