

RF Exposure Evaluation

FCC ID: 2ADH9-GSW

IC ID: 12453A-GSW

MPE Evaluation

The EUT is a wireless switch for lighting system. It is intended for household / commercial, indoor dry locations mounted on wall or ceiling. Configured to be mounted, at least 20 cm from any body part of the user or nearby persons.

Considering maximum Peak EIRP

The maximum Peak EIRP calculated as

12.24 dBm (RF Conducted Power) + (-3.6 dBi)(Antenna Gain) = 8.64 dBm or 7.3mW; The Power Density can be calculated using the formula

$$S = \text{EIRP} / 4\pi D^2$$

Where: S is Power Density in mW/cm²

D is the distance from the antenna.

It is considered that 20 cm is the minimum distance that user can go closest to the EUT.

At 20 cm, S = 0.00145mW/cm², or 0.0145W/m² which is below the MPE Limit of 10 W/m²

Considering maximum conducted power 12.24dBm (0.017 Watts)

The Power Density can be calculated using the formula

$$S = \text{Max power} / 4\pi D^2$$

Where: S is Power Density in mW/cm²

D is the distance from the antenna.

It is considered that 20 cm is the minimum distance that user can go closest to the EUT.

At 20 cm, S = 0.0338mW/cm², or 0.338W/m² which is below the MPE Limit of 10 W/m²