

# Zigbee Plug-in Dimmer with load sensing

**FCC ID: U2ZZB3102**

## **MPE calculation**

Dear Reviewer,

The maximum measured power output is: 14dBm

The maximum antenna gain for integral antenna is: 2.0dBi

The maximum permissible exposure is defined in 47 CFR 1.1310 with 1 mW/cm<sup>2</sup>

The Transmitter is using external antennas that operate at 20 cm or more from nearby persons.

The maximum permitted level is calculated using the general equation:

$$S = P' / 4\pi R^2$$

$$802.11b/g: P' = 14\text{dBm} + 2.0\text{dBi} = 16\text{dBm} = 39.8\text{mW}$$

$$R = 20\text{cm}$$

$$\pi = 3.1416$$

Solving for S, the power density at 20 cm is: **0.079mW/cm<sup>2</sup>**