

U2ZBT4101 MPE calculation

Dear Reviewer,

The maximum measured power output is: 7.9dBm

The maximum antenna gain for integral antenna is: 1.9dBi

The maximum permissible exposure is defined in 47 CFR 1.1310 with 1 mW/cm².

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

The maximum permitted level is calculated using the general equation:

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

$$P' = 7.9\text{dBm} + 1.9\text{dBi} = 9.8\text{dBm} = 9.5\text{mW}$$

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

$$\pi = 3.1416$$

Solving for S, the power density at 20 cm is: **0.019mW/cm²**