

ZXV10 W300 V8 MPE calculation

Dear Reviewer,

The maximum measured power output is

802.11b/g: 17.5dBm

The maximum antenna gain for integral antenna is

802.11b/g: 1.8dBi

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

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:

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

$$802.11b/g: P' = 17.5\text{dBm} + 1.8\text{dBi} = 19.3\text{dBm} = 85\text{mW}$$

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

$$\pi = 3.1416$$

Solving for S, the power density at 20 cm is

$$802.11b/g: \mathbf{0.017\text{mW/cm}^2}$$