

Zinwave 3000 Optical RU DAS

Maximum Permitted Exposure Calculation

DS08_ZIN_MPE_02_B

The equation for the MPE calculation is given in OET bulletin 65, page 19 as

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

Where S = Power density (W/m^2)
 EIRP = Effective Isotropically Radiated Power = $P \times G$ (W)
 r = Perpendicular distance from antenna

Values P = 20 dBm = 100 mW
 G = 8 dBi = 6.31 linear
 R = 20 cm

Calculation $S = 100 * 6.31 / (4 * 3.14159 * 20^2)$
 $S = 0.13 \text{ mW}/\text{m}^2$

Limit Maximum permitted value of S is given in table 1(b) – Limits for general Population / Uncontrolled Exposure, of $S = 1.0 \text{ mW}/\text{m}^2$

Conclusion The 3000 Optical DAS meets MPE limits at 20 cm distance