

## Zinwave 3000 Optical RU DAS

### Maximum Permitted Exposure Calculation

DS08\_ZIN\_MPE\_04\_A

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 ( $\text{W}/\text{m}^2$ )  
 $\text{EIRP}$  = 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 Co-Ax DAS meets MPE limits at 20 cm distance