MPE CALCULATION

Midway Plumbing NTXINT900

Description of device and antenna used:
902 to 928 MHz band frequency hopping spread spectrum transmitter using a 3 dBd omni antenna. This devices is fixed mounted.

$W := .252$ power in Watts $D := 1$ Duty Factor in decimal % (1=100%)

$E := 30$ exposure time in minutes $U := 30$ (use 6 for controlled and 30 for uncontrolled)

$$Wexp := W \cdot D \cdot \left(\frac{E}{U} \right) \qquad PC := \frac{E}{U}$$

$PC = 1$ percent on time

$Wexp = 0.252$ Watts

$Po := 252$ mWatts $dBd := 3$ antenna gain $f := 915$ Frequency in MHz

$G := dBd + 2.15$ gain in dBi

$Gn := 10^{\frac{G}{10}}$ gain numeric $S := .61$ S is f/1500 for uncontrolled exposure.

$Gn = 3.273$ $S = 0.61$

$$R := \sqrt{\frac{(Po \cdot Gn)}{(4 \cdot \pi \cdot S)}} \qquad Rinches := \frac{R}{2.54}$$

$R = 10.374$ distance in centimeters required for compliance

$Rinches = 4.084$

Conclusion: this device appears to meet the requirements for this class of device.