

SUBJECT: MPE Calculations

MPE calculations were made assuming worst case in each band with respect to frequency, ERP and Limit. The maximum allowable ERP was determined from the applicable part 90 rules regarding power limitation (90.205, 90.309, 90.635). The limit used was for uncontrolled exposure. The formula used was derived from OET 65, section 2, equation 4. Limits used were the "Occupational /Controlled Exposure" limits derived from 47 CFR Part 1.1310 table 1.

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[STUDENT > $\text{evalf}\left(\left(\frac{500 \cdot 1.64}{.001 \cdot 4 \pi \cdot 2}\right)^{\left(\frac{1}{2}\right)}, 15\right)$

cm assuming a maximum 500 Watts ERP per 90.205 [571.198418781269](#)

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[STUDENT > $\text{evalf}\left(\frac{\left(\frac{500 \cdot 1.64}{.001 \cdot 4 \pi \cdot 2}\right)^{\left(\frac{1}{2}\right)}}{2.54}, 15\right)$

inches assuming a maximum 500 Watts ERP per 90.205 [224.881267230945](#)

[STUDENT > $\frac{224.881267230945}{12}$

feet assuming a maximum 500 Watts ERP per 90.205 [18.74010560](#)

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