

13.2 MPE Calculation

47 CFR §§1.1310

Prediction of MPE limit at a given distance

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S = \frac{EIRP}{4 \pi R^2} \text{ re - arranged} \quad R = \sqrt{\frac{EIRP}{S 4 \pi}}$$

where:

S = power density

R = distance to the centre of radiation of the antenna

EIRP = EUT Maximum power

Note:

The EIRP was calculated by addition on the maximum conducted carrier power 7.95 dBm (6.24 mW) and the maximum antenna gain (2dBi).

Result

Prediction Frequency (MHz)	Maximum EIRP (mW)	Power density limit (S) (mW/cm ²)	Distance (R) cm Required to be less than 1 mW/cm ²
1921.536	102.56	1	2.9
1928.448	103.51	1	2.9