

Prediction of MPE limit at a given distance

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

$$S = \frac{PG}{4\pi R^2}$$



where: S = power density
P = power input to the antenna
G = power gain of the antenna in the direction of interest relative to an isotropic antenna
R = distance to the center of radiation of the antenna

Maximum Power = 1.405X30 Watts=42.150 Watts for 90% amplitude modulation

Maximum peak output power at antenna input terminal: 46.25 (dBm)

Maximum peak output power at antenna input terminal: 42150 (mW)

Antenna gain(typical): 2 (dBi)

Maximum antenna gain: 1.584893192 (numeric)

Prediction distance: 200 (cm)

Prediction frequency: 118-136 (MHz)

PE limit for uncontrolled exposure at prediction frequency: 0.2 (mW/cm²)

Power density at prediction frequency: **0.132901** (mW/cm²)

Maximum allowable antenna gain: **3.775022721** (dBi)

Margin **1.775022721**

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