



Prediction of MPE limit at a given distance

Mini-Repeater DEKO 2119 with 2 dBi Omni-directional Antenna (DownLink)

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 radiator

R = distance to the center of radiation of the antenna

Maximum peak output power at antenna input terminal: 21.30 (dBm)

Maximum peak output power at antenna input terminal: 134.8962883 (mW)

Antenna gain(typical): 2 (dBi)

Maximum antenna gain: 1.584893192 (numeric)

Prediction distance: 20 (cm)

Prediction frequency: 1980 (MHz)

MPE limit for uncontrolled exposure at prediction frequency: 1 (mW/cm²)

Power density at prediction frequency: 0.042533 (mW/cm²)

Maximum allowable antenna gain: 15.71269855 (dBi)

Margin of Compliance: 13.71269855 (dB)