

Prediction of MPE limit at a given distance
DEKO 3189 Down-link



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: 31.30 (dBm)

Maximum peak output power at antenna input terminal: 1348.962883 (mW)

Antenna gain(typical): 0 (dBi)

Maximum antenna gain: 1 (numeric)

Prediction distance: 20 (cm)

Prediction frequency: 860 (MHz)

MPE limit for uncontrolled exposure at prediction frequency: 0.573333333 (mW/cm²)

Power density at prediction frequency: 0.268368 (mW/cm²)

2.683676 (W/m²)

Maximum allowable antenna gain: 3.296770475 (dBi)

Margin of Compliance: 3.296770475 dB

Prediction of MPE limit at a given distance
DEKO 3189 Up-link

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: 22.15 (dBm)

Maximum peak output power at antenna input terminal: 164.0589773 (mW)

Antenna gain(typical): 0 (dBi)

Maximum antenna gain: 1 (numeric)

Prediction distance: 20 (cm)

Prediction frequency: 898.5 (MHz)

MPE limit for uncontrolled exposure at prediction frequency: 0.599 (mW/cm²)

Power density at prediction frequency: 0.032638 (mW/cm²)

0.326385 (W/m²)

Maximum allowable antenna gain: 12.63696678 (dBi)

Margin of Compliance: 12.63696678 dB

