

UP LINK 835-849 MHZ OUTDOOR ANTENNA
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 radiator

R = distance to the center of radiation of the antenna

Maximum peak output power at antenna input terminal: 30.00 (dBm)

Maximum peak output power at antenna input terminal: 1000 (mW)

Antenna gain(typical): 10 (dBi)

Maximum antenna gain: 10 (numeric)

Prediction distance: 100 (cm)

Prediction frequency: 849 (MHz)

MPE limit for uncontrolled exposure at prediction frequency: 0.6 (mW/cm²)

Power density at prediction frequency: **0.079577** (mW/cm²)

Maximum allowable antenna gain: **18.77361114** (dBi)

Margin of Compliance: **8.773611144** (dB)