

MPE Calculations

Base Station Transceiver MPE Calculation

Nearson S467AH-915S

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: 27.0 (dBm)

Maximum peak output power at antenna input terminal: 501.19 (mW)

Antenna gain(typical): 2.0 (dBi)

Maximum antenna gain: 1.58 (numeric)

Prediction distance: 20 (cm)

Prediction frequency: 915 (MHz)

MPE limit for uncontrolled exposure at prediction frequency: 0.61 (mW/cm²)

Power density at prediction frequency: 0.15803 (mW/cm²)

Maximum allowable antenna gain: 7.87 (dBi)

Margin of Compliance at 100cm: 5.866 (dB)