

RF Exposure

Maximum Permissible Exposure

Performance Criterion (Limits): 1 mW/cm²

Evaluation Results: Complies

Details: The maximum permissible exposure (MPE) is predicted by using the following equation:

$$S = PG/4\pi R^2$$

where: S = power density (in appropriate units, e.g. mW/cm²)

P = power input to the antenna (in appropriate units, e.g., mW)

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 (appropriate units, e.g., cm)

For P = 0.314 mW, G = 2 dBi (1.59), R = 20 cm,

$$S = [(0.314)*(1.59)]/(4*\pi*20^2) = 0.0001 \text{ mW/cm}^2 = 0.001 \text{ W/m}^2$$