

Appendix F – RF Exposure Assessment

The following MPE calculations are based on a measured conducted RF power of 18.47dBm as presented to the antenna. The peak gain of this antenna, based on field strength measurements over a conducting ground plane is 0.3 dBi.

Enter data only in yellow cells

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: 18.47 (dBm)

Maximum peak output power at antenna input terminal: 70.307 (mW)

Antenna gain(typical): 0.3 (dBi)

Maximum antenna gain: 1.072 (numeric)

Prediction distance: 20 (cm)

Prediction frequency: 2405 (MHz)

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

Power density at prediction frequency: 0.014988 (mW/cm²)

Maximum allowable antenna gain: 18.5 (dBi)

Margin of Compliance at 20 cm = 18.2 dB