3.7 MPE

These equations are generally accurate in the far field of an antenna but will over predict power density in the near field, where they could be used for making a "worst case" prediction.

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

where S = power density (in appropriate units, e.g. mW/cm^2)
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 the isotropic radiator
R = distance to the center of radiation of the antenna (appropriate units e.g. cm)

Or

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

where EIRP = equivalent isotropically radiated power

Calculation:

5.2 GHz band	5.8 GHz band
(Calculated for max. EIRP) EIRP: 15.8 dBm = 38 mW calculated at distance of 20 cm: power density = $38/4\pi 20^2$ = 0.008 mW/cm^2	(Calculated for max. EIRP) EIRP: 27.40 dBm = 550 mW calculated at distance of 20 cm: power density = $550/4\pi 20^2$ = 0.109 mW/cm^2

Measurement:

5.2 GHz band
measured at a distance of 20 cm: power density = 0.003 mW/cm^2

Limit:

1mW/cm^2 is the reference level for general public exposure according to the OET Bulletin 65, Edition 97-01 Table 1.