

3.6 RF Exposure Compliance

The maximum measured antenna conducted power, P is 19.4 dBm

The antenna gain, G is -1.0 dBi

The maximum EIRP power = P + G

ERP = 19.4 + (-1.0) = 18.4dBm, or 0.07W

The limits for Maximum Permissible Exposure (MPE) for transmitter operating at 2.4GHz, MPE is 1mW/cm², or 10W/m²

The Power Density, S is related to EIRP with the equation:

$S = \text{EIRP} / 4\pi D^2$, where D is the safe separation distance and = 20cm

$S = 70 / 4\pi 20^2$,

S = 0.014mW/cm², or below the Maximum Permissible Exposure (MPE) of 1mW/cm²