

3.6 RF Exposure Compliance

The maximum measured antenna conducted power, P is 13.4 dBm

The antenna gain, G is 2.0 dBi

The maximum EIRP power = P + G

ERP = 13.4 + 2.0 = 15.4 dBm, or 0.0347W

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

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

$S = EIRP / 4\pi D^2$, where D is the safe separation distance and = 0.2m, or 20cm

$S = 0.0347 / 4\pi 0.2^2 = \underline{0.07W/m^2}$