

3.6 RF Exposure Compliance

The maximum measured antenna conducted power, P is 8.93dBm

The antenna gain, G is 2dBi

The maximum EIRP power = P + GERP = 8.93 + 2 = 10.93dBm, or 0.012W

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

The Power Density is related to EIRP with the equation: $S = EIRP / 4\pi D^2$, or $10 = 0.012 / 4\pi D^2$,

The minimum safe separation distance, D = 0.97cm, which is below 20cm, or RF exposure at 20cm distance is $0.0024mW/cm^2$, which is below $1.0mW/cm^2$