

3.5 RF Exposure Compliance

The maximum measured power, P is 4.6dBm

The antenna gain, G is 2dBi

The maximum EIRP power = P + G
ERP = 4.6+ 2= 6.6dBm, or 0.00457W

The limits for Maximum Permissible Exposure (MPE) for transmitter operating at 2.4Hz, MPE is $1\text{mW}/\text{cm}^2$, or $10\text{W}/\text{m}^2$

The Power Density is related to EIRP with the equation:
 $S = \text{EIRP} / 4\pi D^2$, or $10 = 0.00457 / 4\pi D^2$,

The minimum safe separation distance, D = 0.6cm, which is below 20cm