



3.8 RF Exposure Compliance

The maximum measured antenna conducted power, P is 19dBm

The antenna gain, G is 2dBi

The maximum EIRP power = P + G

ERP = 19+ 2= 21dBm, or 0.126W

The limits for Maximum Permissible Exposure (MPE) for transmitter operating at 902-928MHz, MPE is 928/1500 = 0.619mW/cm², or 6.2W/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 = 0.2m, or 20cm

$S = 0.128 / 4\pi 0.2^2$,

$S = 0.254\text{mW/cm}^2$, or below the Maximum Permissible Exposure (MPE) of 6.2W/m²