

Electromagnetic wave passing through 1  $\text{m}^2$ . If the power passing through the area is 1 W, the wave has a power density of 1  $\text{W/m}^2$ 

Far Field Region Power Density

Power Density 
$$P_{0} = \frac{E^{2}}{Z} W/m^{2}$$

where:

E = Electric Field in V/m

Z = Wave Impedance = 3770hms.