1.1310 & 2.1091 / RSS-102

Maximum Permissible Exposure (MPE)

Determine the maximum power density for the general / uncontrolled population minimum separation distance of 20 cm.

FCC Limit: f > 1500 MHz = 1mW/cm^2; IC Limit: f=1500 to 15000 MHz = 10W/m^2

The power density is calculated as:

$$P_d = \frac{P_t \times G}{4 \times \pi \times r^2}$$

P_d = power density in milliwatts/cm^2
P_t = transmit power in milliwatts
G = numeric antenna gain
r = distance between body and transmitter in centimeters.

Other Technical Information:
Antenna Type: Omni
Antenna Gain: 1 (0dBi)
Transmitter Power (Conducted): 30mW
Frequency: 2440 MHz

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results: P_D = (30x 1) / (4 x pi x 20cm^2) =0.00597mW/cm$^{2=}$ 0.0597W/m^2 @ 20 cm