3.2   Prediction of MPE limit at given distance

$S = EIRP / 4\pi\ R^2$

where: EIRP   = Equivalent isotropic radiated power
        S   = Power density
        R   = Distance to the center of radiation of the antenna

The table below is excerpted from Table 1B of 47 CFR 1.1310 titled "Limits for Maximum Permissible Exposure (MPE), Limits for General Population/Uncontrolled Exposure"

Frequency Range (MHz)	Power Density (mW/cm^2)	Averaging Time (minutes)
300 -1500	f/1500	30
1500 - 100000	1.0	30

where f = Frequency (MHz)

Prediction:

EIRP   Equivalent isotropic radiated power: 20 dBm / 100 mW
R   Distance: 20 cm
S   MPE limit for uncontrolled exposure: 1 mW/cm^2

Calculated Power density: 0.0199 mW/cm²

This prediction demonstrates the following:

The power density levels at a distance of 20 cm are below the maximum levels allowed by FCC regulations.