

MPE Calculations : (WLAN: 802.11n HT20)

- Frequency range : 2412 MHz ~ 2462 MHz
- Target Power (Max) : 20 dBm

- Maximum antenna peak gain : 3.878 dBi
- **Maximum output power for the calculation** 20.00 dBm

The EUT will only be used with a separation of 20 centimeters or greater between the antenna and the body of the user.

The MPE calculation for this exposure is shown below.

$ \begin{aligned} \text{▪ EIRP} &= P + G \\ &= 20.00 \text{ dBm} + 3.878 \text{ dBi} \\ &= \mathbf{23.878 \text{ dBm} = 244.231 \text{ mW}} \end{aligned} $	- Note P = Power input to the antenna(dBm) G = Power gain of the antenna(dBi)
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- Power density at the specific separation

$ \begin{aligned} \text{▪ S} &= \text{EIRP} / (4 R^2 \pi) \\ &= \mathbf{244.231} / (4 \times 20^2 \times \pi) \\ &= \mathbf{0.048588 \text{ mW/cm}^2} \end{aligned} $	- Note S = Maximum power density(mW/cm ²) EIRP = Equivalent Isotropic Radiated Power(mW) R = Distance to the center of the radiation of the antenna(20cm)
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Conclusion : The exposure condition of this device is compliant with FCC rules.

The maximum permissible exposure(MPE) of the general population/Uncontrolled for this device is 1.0 mW/cm².