

MPE Calculations : (WLAN: 802.11b)

- Frequency range : 2412 MHz ~ 2462 MHz
- Measured RF output power : 14.01 dBm
- Target Power & Tolerance : 13.00 dBm $\pm$ 1.5 dB (Max. 14.5 dBm & Min. 11.5 dBm)
- Maximum antenna peak gain : 2.44 dBi
- **Maximum output power for the calculation: 14.50 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.

▪ EIRP = P + G = 14.50 dBm + 2.44 dBi = 16.94 dBm = 49.432 mW	- Note - P = Power input to the antenna(dBm) - G = Power gain of the antenna(dBi)
--	--

- Power density at the specific separation

▪ S = $\text{EIRP} / (4 R^2 \pi)$ = 49.432 / (4 X 20² X π) = 0.009835 mW/cm²	- Note - S = Maximum power density(mW/cm²) - EIRP = Equivalent Isotropic Radiated Power(mW) - R = Distance to the center of the radiation of the antenna(20cm)
---	---

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.

MPE Calculations : (WLAN: 802.11g)

- Frequency range : 2412 MHz ~ 2462 MHz
- Measured RF output power : 7.32 dBm
- Target Power & Tolerance : 6.50 dBm $\pm$ 1 dB (Max. 7.5 dBm & Min. 5.5 dBm)
- Maximum antenna peak gain : 2.44 dBi
- **Maximum output power for the calculation 7.50 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.

▪ EIRP = P + G = 7.50 dBm + 2.44 dBi = 9.94 dBm = 9.863 mW	- Note - P = Power input to the antenna(dBm) - G = Power gain of the antenna(dBi)
--	--

- Power density at the specific separation

▪ S = $\text{EIRP} / (4 R^2 \pi)$ = 9.863 / (4 X 20² X π) = 0.001963 mW/cm²	- Note - S = Maximum power density(mW/cm²) - EIRP = Equivalent Isotropic Radiated Power(mW) - R = Distance to the center of the radiation of the antenna(20cm)
--	---

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.

MPE Calculations : (WLAN: 802.11n HT20)

- Frequency range : 2412 MHz ~ 2462 MHz
- Measured RF output power : 7.06 dBm
- Target Power & Tolerance : 6.50 dBm $\pm$ 1 dB (Max. 7.5 dBm & Min. 5.5 dBm)
- Maximum antenna peak gain : 2.44 dBi
- **Maximum output power for the calculation 7.50 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.

▪ EIRP = P + G = 7.50 dBm + 2.44 dBi = 9.94 dBm = 9.863 mW	- Note - P = Power input to the antenna(dBm) - G = Power gain of the antenna(dBi)
--	--

- Power density at the specific separation

▪ S = $EIRP / (4 R^2 \pi)$ = 9.863 / (4 X 20² X π) = 0.001963 mW/cm²	- Note - S = Maximum power density(mW/cm²) - EIRP = Equivalent Isotropic Radiated Power(mW) - R = Distance to the center of the radiation of the antenna(20cm)
---	---

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.

MPE Calculations : (5.1GHz WLAN: 802.11a)

- Frequency range : 5180 MHz ~ 5240 MHz
- Measured RF output power : 3.56 dBm
- Target Power & Tolerance : 3.00 dBm $\pm$ 1 dB (Max. 4 dBm & Min. 2 dBm)
- Maximum antenna peak gain : 3.22 dBi
- **Maximum output power for the calculation 4.00 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.

▪ EIRP = P + G = 4.00 dBm + 3.22 dBi = 7.22 dBm = 5.273 mW	- Note - P = Power input to the antenna(dBm) - G = Power gain of the antenna(dBi)
---	--

- Power density at the specific separation

▪ S = EIRP / (4 R² π) = 5.273 / (4 X 20² X π) = 0.001050 mW/cm²	- Note - S = Maximum power density(mW/cm²) - EIRP = Equivalent Isotropic Radiated Power(mW) - R = Distance to the center of the radiation of the antenna(20cm)
---	---

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.

MPE Calculations : (5.7GHz WLAN: 802.11a)

- Frequency range : 5745 MHz ~ 5825 MHz
- Measured RF output power : 4.21 dBm
- Target Power & Tolerance : 3.50 dBm $\pm$ 1 dB (Max. 4.5 dBm & Min. 2.5 dBm)
- Maximum antenna peak gain : 4.30 dBi
- **Maximum output power for the calculation 4.50 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.

▪ EIRP = P + G = 4.50 dBm + 4.30 dBi = 8.80 dBm = 7.586 mW	- Note - P = Power input to the antenna(dBm) - G = Power gain of the antenna(dBi)
---	--

- Power density at the specific separation

▪ S = EIRP / (4 R² π) = 7.586 / (4 X 20² X π) = 0.001510 mW/cm²	- Note - S = Maximum power density(mW/cm²) - EIRP = Equivalent Isotropic Radiated Power(mW) - R = Distance to the center of the radiation of the antenna(20cm)
---	---

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.