

MPE Calculations(WLAN: 802.11b)

- Frequency range : 2412 MHz ~ 2462 MHz
- Measured RF output power : 17.96 dBm
- Target Power & Tolerance : 17.50 dBm ± 1.5 dB (Max. 19 dBm & Min. 16 dBm)
- Maximum antenna peak gain : 0.86 dBi
- **Maximum output power for the calculatio 19.00 dBm**

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

The MPE calculation for this exposure is shown below.

▪ EIRP = P + G = 19.00 dBm + 0.86 dBi = 19.86 dBm = 96.828 mW	- 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**

▪ S = EIRP / (4 R² π) = 96.828 / (4 X 20² X π) = 0.019264 mW/cm²	- Note S = Maximum power dencity(mW/cm²) 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.

MPE Calculations(WLAN: 802.11g)

- Frequency range : 2412 MHz ~ 2462 MHz
- Measured RF output power : 24.72 dBm
- Target Power & Tolerance : 23.00 dBm ± 2 dB (Max. 25 dBm & Min. 21 dBm)
- Maximum antenna peak gain : 0.86 dBi
- **Maximum output power for the calculatio 25.00 dBm**

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

The MPE calculation for this exposure is shown below.

▪ EIRP = P + G = 25.00 dBm + 0.86 dBi = 25.86 dBm = 385.479 mW	- 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**

▪ S = EIRP / (4 R² π) = 385.479 / (4 X 20² X π) = <u>0.076689</u> mW/cm²	- Note S = Maximum power dencity(mW/cm²) 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.

MPE Calculations(WLAN: 802.11n HT20)

- Frequency range : 2412 MHz ~ 2462 MHz
- Measured RF output power : 24.30 dBm
- Target Power & Tolerance : 22.00 dBm ± 2.5 dB (Max. 24.5 dBm & Min. 19.5 dBm)
- Maximum antenna peak gain : 0.86 dBi
- **Maximum output power for the calculatio 24.50 dBm**

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

The MPE calculation for this exposure is shown below.

▪ EIRP = P + G = 24.50 dBm + 0.86 dBi = 25.36 dBm = 343.558 mW	- 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**

▪ S = EIRP / (4 R² π) = 343.558 / (4 X 20² X π) = <u>0.068349</u> mW/cm²	- Note S = Maximum power dencity(mW/cm²) 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.

MPE Calculations(WLAN: 802.11n HT40)

- Frequency range : 2422 MHz ~ 2452 MHz
- Measured RF output power : 19.06 dBm
- Target Power & Tolerance : 18.00 dBm ± 1.5 dB (Max. 19.5 dBm & Min. 16.5 dBm)
- Maximum antenna peak gain : 0.86 dBi
- **Maximum output power for the calculatio 19.50 dBm**

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

The MPE calculation for this exposure is shown below.

▪ EIRP = P + G = 19.50 dBm + 0.86 dBi = 20.36 dBm = 108.643 mW	- 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**

▪ S = $EIRP / (4 R^2 \pi)$ = 108.643 / (4 X 20² X π) = <u>0.021614</u> mW/cm²	- Note S = Maximum power dencity(mW/cm²) 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.