MPE Calculations(WLAN: 802.11b)

- Frequency range : 2412 MHz ~ 2462 MHz
- Measured RF output power : 20.15 dBm
- Target Power & Tolerance : 20.00 dBm + 0.5 dB (Max. 20.5 dBm & Min. dBm)
- Maximum antenna peak gain : 4.68 dBi
- **Maximum output power for the calculatio 20.50 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 = 20.50 dBm + 4.68 dBi = **25.18 dBm** = **329.61 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 π) = **329.610** / (4 X 20^2 X π) = **0.065574** mW/cm^2	- **Note** S = Maximum power dencity(mW/cm^2) 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/cm^2.

MPE Calculations(WLAN: 802.11g)

- Frequency range : 2412 MHz ~ 2462 MHz
- Measured RF output power : 23.32 dBm
- Target Power & Tolerance : 23.00 dBm + 0.5 dB (Max. 23.5 dBm & Min. dBm)
- Maximum antenna peak gain : 4.68 dBi
- **Maximum output power for the calculatio 23.50 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 = 23.50 dBm + 4.68 dBi = **28.18 dBm** = **657.658 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 π) = **657.658** / (4 X 20^2 X π) = **0.130837** mW/cm^2	- **Note** S = Maximum power dencity(mW/cm^2) 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/cm^2.

MPE Calculations(WLAN: 802.11n HT20)

- Frequency range : 2412 MHz ~ 2462 MHz
- Measured RF output power : 24.43 dBm
- Target Power & Tolerance : 23.00 dBm + 1.5 dB (Max. 24.5 dBm & Min. dBm)
- Maximum antenna peak gain : 4.68 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 + 4.68 dBi = **29.18 dBm** = **827.943 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 π) = **827.943** / (4 X 20^2 X π) = **0.164715** mW/cm^2	- **Note** S = Maximum power dencity(mW/cm^2) 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/cm^2.

MPE Calculations(WLAN: 802.11n HT40)

- Frequency range : 2422 MHz ~ 2452 MHz
- Measured RF output power : 22.43 dBm
- Target Power & Tolerance : 21.00 dBm + 1.5 dB (Max. 22.5 dBm & Min. dBm)
- Maximum antenna peak gain : 4.68 dBi

- **Maximum output power for the calculatio 22.50 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 = 22.50 dBm + 4.68 dBi = **27.18 dBm** = **522.397 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 π) = **522.397** / (4 X 20^2 X π) = **0.103928** mW/cm^2	- **Note** S = Maximum power dencity(mW/cm^2) 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/cm^2.