

MPE Calculation : LE

| RF function or Mode | Frequency range (MHz) | Max Target Power (dBm) | ANT Gain (dBi) | Maximum EIRP (dBm) | Maximum EIRP (mW) | Maximum power density (mW/cm ²) | Requirement (mW/cm ²) |
|---------------------|-----------------------|------------------------|----------------|--------------------|-------------------|---|-----------------------------------|
| LE | 2402.00 ~ 2480.00 | -3.50 | 1.00 | -2.50 | 0.5624 | 0.0002 | 1.0000 |
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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 sample calculation for this exposure is shown below.

$$\begin{aligned}
 S &= \text{EIRP} / (4 R^2 \pi) \\
 &= 0.5624 / (4 \times 20^2 \times \pi) \\
 &= 0.0002 \text{ mW/cm}^2
 \end{aligned}$$

- 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)

▪ Limits for Maximum Permissible Exposure (MPE)

| Frequency range (MHz) | Electric Field strength (V/m) | Magnetic field strength (A/m) | Power Density (mW/cm ²) | Averageing time (minutes) |
|-----------------------|-------------------------------|-------------------------------|-------------------------------------|---------------------------|
| 0.3 ~ 1.34 | 614 | 1.63 | *100 | 30 |
| 1.34 ~ 30 | 824/f | 2.19 / f | *180 / f ² | 30 |
| 30 ~ 300 | 27.5 | 0.073 | 0.2 | 30 |
| 300 ~ 1,500 | | | f / 1500 | 30 |
| 1,500 ~ 100,000 | | | 1.0 | 30 |

Conclusion : The exposure condition of this device is compliant with FCC.

MPE Calculation : WLAN

| RF function or Mode | Frequency range (MHz) | Max Target Power (dBm) | ANT Gain (dBi) | Maximum EIRP (dBm) | Maximum EIRP (mW) | Maximum power density (mW/cm ²) | Requirement (mW/cm ²) |
|---------------------|-----------------------|------------------------|----------------|--------------------|-------------------|---|-----------------------------------|
| 802.11b | 2412.00 ~ 2462.00 | 10.50 | -1.50 | 9.00 | 7.9433 | 0.0016 | 1.0000 |
| 802.11g | 2412.00 ~ 2462.00 | 9.50 | -1.50 | 8.00 | 6.3096 | 0.0013 | 1.0000 |
| 802.11n(HT20) | 2412.00 ~ 2462.00 | 9.50 | -1.50 | 8.00 | 6.3100 | 0.0020 | 1.0000 |
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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 sample calculation for this exposure is shown below.

$$\begin{aligned}
 S &= \text{EIRP} / (4 R^2 \pi) \\
 &= 7.9433 / (4 \times 20^2 \times \pi) \\
 &= 0.0016 \text{ mW/cm}^2
 \end{aligned}$$

- 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)

▪ Limits for Maximum Permissible Exposure (MPE)

| Frequency range (MHz) | Electric Field strength (V/m) | Magnetic field strength (A/m) | Power Density (mW/cm ²) | Averageing time (minutes) |
|-----------------------|-------------------------------|-------------------------------|-------------------------------------|---------------------------|
| 0.3 ~ 1.34 | 614 | 1.63 | *100 | 30 |
| 1.34 ~ 30 | 824/f | 2.19 / f | *180 / f ² | 30 |
| 30 ~ 300 | 27.5 | 0.073 | 0.2 | 30 |
| 300 ~ 1,500 | | | f / 1500 | 30 |
| 1,500 ~ 100,000 | | | 1.0 | 30 |

Conclusion : The exposure condition of this device is compliant with FCC.

RF Exposure Compliance for simultaneous operations

- **Configurations for simultaneous operations**

- Configuration : BT+ WLAN

- Note: Above configuration was declared from applicant.

- **Configurations for simultaneous operations**

| RF function or mode | LE | WLAN | Σ of MPE ratios |
|---------------------------------------|--------|--------|-----------------|
| Band | 2.4GHz | 2.4GHz | |
| Power Density (mW/cm ²) | 0.0002 | 0.0020 | |
| Requirement (mW/cm ²) | 1.0000 | 1.0000 | |
| MPE ratio (Power Density/Requirement) | 0.0002 | 0.0020 | |
| Configuration (MPE ratio) | 0.0002 | 0.0020 | 0.0022 |

Note: The maximum power density in each RF function was used for above table.

- **Requirement = Σ of MPE ratios ≤ 1**

Conclusion : The exposure condition of this device is compliant with FCC.