- **FCCID:** YZP-TWFMB005D

# MPE Calculations(WLAN: 802.11b)

- Frequency range : 2412 MHz ~ 2462 MHz
- Maximum RF output power : 17.83 dBm
- Maximum antenna peak gain : 2.10 dBi

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.

The peak radiated output power (EIRP) is calculated as follows:

| | |
|---|---|
| ▪ **EIRP** = P + G<br>= **17.83** dBm + **2.10** dBi<br>= **19.93** dBm | - **Note**<br>P = Power input to the antenna(dBm)<br>G = Power gain of the antenna(dBi) |

**- Power density at the specific separation**

| | |
|---|---|
| ▪ **S** = P G / ( 4 $R^2$ π )<br>= **60.67** X **1.622** / ( 4 X $20^2$ X π )<br>= **0.01958** $mW/cm^2$ | - **Note**<br>S = Maximum power dencity($mW/cm^2$)<br>P = Power input to the antenna(mW)<br>G = Numeric power gain of the antenna<br>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 $mW/cm^2$.
The power desity at 20cm does not exceed the 1.0$mW/cm^2$.

- **FCCID:** YZP-TWFMB005D

# MPE Calculations(WLAN: 802.11g)

- Frequency range : 2412 MHz ~ 2462 MHz
- Maximum RF output power : 25.22 dBm
- Maximum antenna peak gain : 2.1 dBi

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.

The peak radiated output power (EIRP) is calculated as follows:

| | |
|---|---|
| ▪ **EIRP** = P + G<br>= **25.22** dBm + **2.10** dBi<br>= **27.32** dBm | - **Note**<br>P = Power input to the antenna(dBm)<br>G = Power gain of the antenna(dBi) |

- **Power density at the specific separation**

| | |
|---|---|
| ▪ **S** = P G / ( 4 $R^2$ π )<br>= **332.66** X **1.622** / ( 4 X $20^2$ X π )<br>= **0.10733** $mW/cm^2$ | - **Note**<br>S = Maximum power dencity($mW/cm^2$)<br>P = Power input to the antenna(mW)<br>G = Numeric power gain of the antenna<br>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 $mW/cm^2$.
The power desity at 20cm does not exceed the 1.0$mW/cm^2$.

- **FCCID:** YZP-TWFMB005D

# MPE Calculations(WLAN: 802.11n HT20)

- Frequency range : 2412 MHz ~ 2462 MHz
- Maximum RF output power : 27.85 dBm - aggregared
- Max. antenna 0 peak gain : 2.10 dBi
- Max antenna 1 peak gain : 1.73 dBi
- Aggregate antenna peak gain : 4.93 dBi

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.

The peak radiated output power (EIRP) is calculated as follows:

| | |
|---|---|
| ▪ **EIRP** = P + G<br>= **27.85** dBm + **4.93** dBi<br>= **32.78** dBm | - **Note**<br>P = Power input to the antenna(dBm)<br>G = Power gain of the antenna(dBi) |

- **Power density at the specific separation**

| | |
|---|---|
| ▪ **S** = P G / ( 4 $R^2$ π )<br>= **609.54** X **3.111** / ( 4 X $20^2$ X π )<br>= **0.37727** $mW/cm^2$ | - **Note**<br>S = Maximum power dencity($mW/cm^2$)<br>P = Power input to the antenna(mW)<br>G = Numeric power gain of the antenna<br>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 $mW/cm^2$.
The power desity at 20cm does not exceed the 1.0$mW/cm^2$.

- **FCCID:** YZP-TWFMB001T

# MPE Calculations(WLAN: 802.11n HT40)

- Frequency range : 2422 MHz ~ 2452 MHz
- Maximum RF output power : 26.87 dBm - aggregared
- Max. antenna 0 peak gain : 2.10 dBi
- Max. antenna 1 peak gain : 1.73 dBi
- Aggregate antenna peak gain : 4.93 dBi

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.

The peak radiated output power (EIRP) is calculated as follows:

| | |
|---|---|
| ▪ **EIRP** = P + G<br>= **26.87** dBm + **4.93** dBi<br>= **31.80** dBm | - **Note**<br>P = Power input to the antenna(dBm)<br>G = Power gain of the antenna(dBi) |

- **Power density at the specific separation**

| | |
|---|---|
| ▪ **S** = P G / ( 4 $R^2$ π )<br>= **486.41** X **3.111** / ( 4 X $20^2$ X π )<br>= **0.30106** $mW/cm^2$ | - **Note**<br>S = Maximum power dencity($mW/cm^2$)<br>P = Power input to the antenna(mW)<br>G = Numeric power gain of the antenna<br>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 $mW/cm^2$.
The power desity at 20cm does not exceed the 1.0$mW/cm^2$.

- **FCCID:** YZP-TWFMB005D

# MPE Calculations(WLAN: 802.11a)

- Frequency range : **5745** MHz ~ **5825** MHz
- Maximum RF output power : **24.31** dBm
- Maximum antenna peak gain : **2.36** dBi

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.

The peak radiated output power (EIRP) is calculated as follows:

| | |
|---|---|
| ▪ **EIRP** = P + G<br>= **24.31** dBm + **2.36** dBi<br>= **26.67** dBm | - **Note**<br>P = Power input to the antenna(dBm)<br>G = Power gain of the antenna(dBi) |

- **Power density at the specific separation**

| | |
|---|---|
| ▪ **S** = P G / ( 4 $R^2$ π )<br>= **269.77** X **1.722** / ( 4 X $20^2$ X π )<br>= **0.09241** $mW/cm^2$ | - **Note**<br>S = Maximum power dencity($mW/cm^2$)<br>P = Power input to the antenna(mW)<br>G = Numeric power gain of the antenna<br>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 $mW/cm^2$.
The power desity at 20cm does not exceed the 1.0$mW/cm^2$.

- **FCCID:** YZP-TWFMB005D

# MPE Calculations(WLAN: 802.11n HT20)

- Frequency range : 5745 MHz ~ 5825 MHz
- Maximum RF output power : 27.23 dBm - aggregared
- Max. antenna 0 peak gain : 2.67 dBi
- Max. antenna 1 peak gain : 2.36 dBi
- Aggregate antenna peak gain : 5.53 dBi

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.

The peak radiated output power (EIRP) is calculated as follows:

| | |
|---|---|
| ▪ **EIRP** = P + G<br>= **27.23** dBm + **5.53** dBi<br>= **32.76** dBm | - **Note**<br>P = Power input to the antenna(dBm)<br>G = Power gain of the antenna(dBi) |

- **Power density at the specific separation**

| | |
|---|---|
| ▪ **S** = P G / ( 4 $R^2$ π )<br>= **528.45** X **3.571** / ( 4 X $20^2$ X π )<br>= **0.37544** $mW/cm^2$ | - **Note**<br>S = Maximum power dencity($mW/cm^2$)<br>P = Power input to the antenna(mW)<br>G = Numeric power gain of the antenna<br>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 $mW/cm^2$.
The power desity at 20cm does not exceed the 1.0$mW/cm^2$.

- FCCID: YZP-TWFMB005D

# MPE Calculations(WLAN: 802.11n HT40)

- Frequency range : 5755 MHz ~ 5795 MHz
- Maximum RF output power : 27.03 dBm - aggregared
- Max. antenna 0 peak gain : 2.67 dBi
- Max. antenna 1 peak gain : 2.36 dBi
- Aggregate antenna peak gain : 5.53 dBi

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.

The peak radiated output power (EIRP) is calculated as follows:

| | |
|---|---|
| ▪ **EIRP** = P + G<br>= **27.03** dBm + **5.53** dBi<br>= **32.56** dBm | - **Note**<br>P = Power input to the antenna(dBm)<br>G = Power gain of the antenna(dBi) |

- **Power density at the specific separation**

| | |
|---|---|
| ▪ **S** = P G / ( 4 $R^2$ π )<br>= **504.66** X **3.571** / ( 4 X $20^2$ X π )<br>= **0.35854** $mW/cm^2$ | - **Note**<br>S = Maximum power dencity($mW/cm^2$)<br>P = Power input to the antenna(mW)<br>G = Numeric power gain of the antenna<br>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 $mW/cm^2$.
The power desity at 20cm does not exceed the 1.0$mW/cm^2$.

- **FCCID:** YZP-TWFMB005D

# MPE Calculations(WLAN: 802.11a)

- Frequency range : **5180** MHz ~ **5240** MHz
- Maximum RF output power : **12.08** dBm
- Maximum antenna peak gain : **4.14** dBi

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.

The peak radiated output power (EIRP) is calculated as follows:

| | |
|---|---|
| ▪ **EIRP** = P + G<br>= **12.08** dBm + **4.14** dBi<br>= **16.22** dBm | - **Note**<br>P = Power input to the antenna(dBm)<br>G = Power gain of the antenna(dBi) |

- **Power density at the specific separation**

| | |
|---|---|
| ▪ **S** = P G / ( 4 $R^2$ π )<br>= **16.14** X **2.594** / ( 4 X $20^2$ X π )<br>= **0.00833** $mW/cm^2$ | - **Note**<br>S = Maximum power dencity($mW/cm^2$)<br>P = Power input to the antenna(mW)<br>G = Numeric power gain of the antenna<br>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 $mW/cm^2$.
The power desity at 20cm does not exceed the 1.0$mW/cm^2$.

- FCCID: YZP-TWFMB005D

# MPE Calculations(WLAN: 802.11n HT20)

- Frequency range : 5180 MHz ~ 5240 MHz
- Maximum RF output power : 13.01 dBm - aggregared
- Max. antenna 0 peak gain : 3.32 dBi
- Max antenna 1 peak gain : 4.14 dBi
- Aggregate antenna peak gain : 6.76 dBi

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.

The peak radiated output power (EIRP) is calculated as follows:

| | |
|---|---|
| ▪ **EIRP** = P + G<br>= **13.01** dBm + **6.76** dBi<br>= **19.77** dBm | - **Note**<br>P = Power input to the antenna(dBm)<br>G = Power gain of the antenna(dBi) |

- **Power density at the specific separation**

| | |
|---|---|
| ▪ **S** = P G / ( 4 $R^2$ π )<br>= **20.00** X **4.742** / ( 4 X $20^2$ X π )<br>= **0.01887** $mW/cm^2$ | - **Note**<br>S = Maximum power dencity($mW/cm^2$)<br>P = Power input to the antenna(mW)<br>G = Numeric power gain of the antenna<br>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 $mW/cm^2$.
The power desity at 20cm does not exceed the 1.0$mW/cm^2$.

- **FCCID:** YZP-TWFMB005D

# MPE Calculations(WLAN: 802.11n HT40)

- Frequency range : **5190** MHz ~ **5230** MHz
- Maximum RF output power : **14.98** dBm - aggregared
- Max. antenna 0 peak gain : **3.32** dBi
- Max. antenna 1 peak gain : **4.14** dBi
- Aggregate antenna peak gain : **6.76** dBi

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.

The peak radiated output power (EIRP) is calculated as follows:

| | |
|---|---|
| ▪ **EIRP** = P + G<br>= **14.98** dBm + **6.76** dBi<br>= **21.74** dBm | - **Note**<br>P = Power input to the antenna(dBm)<br>G = Power gain of the antenna(dBi) |

- **Power density at the specific separation**

| | |
|---|---|
| ▪ **S** = P G / ( 4 $R^2$ π )<br>= **31.48** X **4.742** / ( 4 X $20^2$ X π )<br>= **0.02970** $mW/cm^2$ | - **Note**<br>S = Maximum power dencity($mW/cm^2$)<br>P = Power input to the antenna(mW)<br>G = Numeric power gain of the antenna<br>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 $mW/cm^2$.
The power desity at 20cm does not exceed the 1.0$mW/cm^2$.