

## MPE Calculation

**FCC ID: X4Y541U1**

RF Exposure Requirements: 47CFR§1.1307(b)  
RF Radiation Exposure Limits: 47CFR§1.1310  
RF Radiation Exposure Guidelines: 47CFR§2.1091  
EUT Frequency Band: 2412 – 2462MHz  
Limits for General Population/Uncontrolled Exposure in the band of: 1500 – 100000MHz  
Power Density Limit: 1.0mW/cm<sup>2</sup>;

Equation:  $S = PG/4\pi R^2$   
Where, S=Power Density  
P=Power Input to Antenna  
G=Antenna Gain  
R=distance to the center of radiated antenna

Low Channel (2412MHz):  
Power=17.52dBm, Antenna Gain=2.5dBi, Prediction distance 20cm  
 $S = (56.49 \times 1.78) / (4 \times 3.14 \times 20^2) = 0.02 \text{ mW/cm}^2$

### Result

The above result had shown that device complied with 1.0mW/cm<sup>2</sup> Power density requirement for distance of 20 cm.