

## MPE CALCULATION

FCC ID: WBV-AP1130/ IC ID: 774A-AP1130

RF Exposure Requirements:	47 CFR §1. 1307(b)
RF Radiation Exposure Limits:	47 CFR §1. 1310
RF Radiation Exposure Guidelines:	FCC OST/OET Bulletin Number 65
EUT Frequency Band:	2402-2480MHz, 2412-2462 MHz, 5180-5825MHz
Limits for General Population/Uncontrolled Exposure in the band of:	1500 - 100,000 MHz
Power Density Limit:	1 mW / cm <sup>2</sup>

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

### Directional Antenna

Prediction distance 40cm

(WLAN 2.4GHz): Power = 26.11dBm, Antenna Gain = 5 dBi, Power density = 0.257 mW/cm<sup>2</sup>

(WLAN 5GHz): Power = 26.29dBm, Antenna Gain = 5.5 dBi, Power density = 0.300 mW/cm<sup>2</sup>

Mode	Prediction Distance (cm)	Target power (dBm)	Max. Antenna Gain (dBi)	Power Density (mW/cm <sup>2</sup> )
WLAN 2.4GHz	40	26.11	5	0.0642
WLAN 5GHz	40	26.29	5.5	0.0751

If 2.4GHz & 5GHz transmit simultaneously.

Total MPE= 0.0642 +0.0751 = 0.1393 mW/cm<sup>2</sup>

The Above Result had shown that the Device complied with MPE requirement.

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