

## MPE CALCULATION

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:	5745 - 5825MHz , 2412-2462MHz
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

---

Power density Limit = 1mW/cm<sup>2</sup>.

R=20cm

$$S = PG / 4\pi R^2$$

Frequency	Antenna Gain (dBi)	Max Power (mW)	Distance (cm)	Power density (mW/cm <sup>2</sup> )	Total (mW/cm <sup>2</sup> )
2412-2462MHz	2	915	20	0.288	0.77
5745-5825MHz	5	765	20	0.482	

Completed By : Choon Sian Ooi

Date : April 04, 2012