

## 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:** 2402 - 2480 MHz  
**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

Prediction distance 20cm

Power = 1.009 mW (Maximum peak output power),  
Antenna Gain = 3 dBi (Numerical Antenna; equal to 4.0 dBi)  
Power density = 0.00057 mW/ cm<sup>2</sup>

Mode	Prediction distance (cm)	Target Power (dBm)	Tune up power tolerance (dB)	Max Tune up Power (dBm)	Max Antenna Gain (dBi)	Power density (mW/ cm <sup>2</sup> )
DTS band BT LE	20	0.04	1.5	1.54	3	0.00057

Note: The MPE value is calculated on the channel with the worst case scenario. In this case low channel is investigated.

In conclusion, SAR is not required. The maximum power density is 0.00057 mW/ cm<sup>2</sup>, which is less than 1 mW/ cm<sup>2</sup>.  
The Above Result had shown that the Device complied with MPE requirement.

Completed By:



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