

## MPE Calculations : (Bluetooth)

- Frequency range : 2402 MHz ~ 2480 MHz
- Measured RF output power : 2.40 dBm
- Target Power & Tolerance : 1.00 dBm  $\pm$  1.5 dB ( Max. 2.5 dBm & Min. -0.5 dBm )
- Maximum antenna peak gain : 3.50 dBi
- **Maximum output power for the calculation 2.50 dBm**

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.

<ul style="list-style-type: none"> <li>▪ <b>EIRP</b> = P + G</li> <li>= 2.50 dBm + 3.50 dBi</li> <li>= <b>6.00 dBm</b> = <b>3.982 mW</b></li> </ul>	<ul style="list-style-type: none"> <li>- <b>Note</b></li> <li>P = Power input to the antenna(dBm)</li> <li>G = Power gain of the antenna(dBi)</li> </ul>
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### - Power density at the specific separation

<ul style="list-style-type: none"> <li>▪ <b>S</b> = <math>\text{EIRP} / (4 R^2 \pi)</math></li> <li>= <b>3.982</b> / ( 4 X 20<sup>2</sup> X <math>\pi</math> )</li> <li>= <b>0.000793</b> mW/cm<sup>2</sup></li> </ul>	<ul style="list-style-type: none"> <li>- <b>Note</b></li> <li>S = Maximum power density(mW/cm<sup>2</sup>)</li> <li>EIRP = Equivalent Isotropic Radiated Power(mW)</li> <li>R = Distance to the center of the radiation of the antenna(20cm)</li> </ul>
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**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<sup>2</sup>.