

## MPE Calculation at 20 cm for Uncontrolled Environment

Formula from page 18 of OET Bulletin 65, Edition 97-01

$$S = \frac{PG}{4\pi R^2}$$

Where: S = power density

P = power input to the antenna

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna

Source Based Time Averaged Duty Cycles is 100% in calculation below

Maximum peak output power at antenna input terminal :	<u>20.09</u> (dBm)	Refer to FCC TRaC report "TRA-007213-W-US-2.pdf" for Power.
Maximum peak output power at antenna input terminal :	<u>102.09</u> (mW)	
Maximum antenna gain :	<u>2.0</u> (dBi)	
Maximum antenna gain :	<u>1.58</u> (numeric)	
Prediction distance :	<u>20.0</u> (cm)	
Prediction frequency :	<u>1928</u> (MHz)	
Time Averaged Duty Cycle :	<u>100</u> (%)	
MPE limit for uncontrolled exposure at prediction frequency :	<u>10.00</u> (W/m <sup>2</sup> )	
Power density at prediction frequency :	<u>0.03234</u> (mW/cm <sup>2</sup> )	
Power density at prediction frequency :	<u>0.3234</u> (W/m <sup>2</sup> )	
Maximum allowable antenna gain :	<u>16.9</u> (dBi)	
Margin of Compliance :	<u>14.9</u> (dB)	