

For 1 dBi antenna

<u>M P E C A L C U L A T I O N for GALTRONICS WNG-WAP-104</u>			
Formular used in the M P E Calculations:			
$E^2/3770 = S, \text{m W /cm}^2$			
$P_{\text{watts}} * G_{\text{gain}} = 10^{(P_{\text{dBm}} - 30 + G_{\text{dBi}})/10}$			
$E, \text{V/m} = (P_{\text{watts}} * G_{\text{gain}} * 30)^{.5/d, \text{meters}}$			
$d = ((P_{\text{watts}} * G * 30)/3770 * S)^{.5}$		(A)	
Since			
$S (\text{m W /cm}^2) =$	1.00	from 1.1310 Table 1	
$P (\text{dBm}) =$	20.7	EUT output power	
$G (\text{dBi}) =$	1.0	EUT antenna gain	
Substitute these parameters into the A above ,we have			
M P E safe distance d (cm) =		3.4	
NOTE: For mobile or fixed location transmitters, minimum separation distance is 20 cm ,even if calculations indicate M P E distance is less			

For 8 dBi antenna

<u>MPE CALCULATION for GALTRONICS WNG-WAP-104</u>			
Formular used in the MPE Calculations:			
E^2/3770 = S, mW/cm2			
Pwatts*Ggain = 10^(PdBm-30+GdBi)/10)			
E, V/m = (Pwatts*Ggain*30)^.5/d, meters			
d = ((Pwatts*G*30)/3770*S))^0.5 ----- (A)			
Since			
S (mW/cm²) = 1.00		from 1.1310 Table 1	
P (dBm) = 20.7		EUT output power	
G (dBi) = 8.0		EUT antenna gain	
Substitute these parameters into the A above, we have			
MPE safe distance d (cm) =		7.7	
NOTE: For mobile or fixed location transmitters, minimum separation distance is 20 cm, even if calculations indicate MPE distance is less			