Maximum power density calculations for **remote dish** using FCC prediction methods (Pages 26-29)

by Jay McCandless 12/28/99

Model	Frequency (f) (GHz)	Wavelength (λ) (cm) is 30/f	Specified Gain (dB)	Gain (G) is 10^dB gain/10	Aperture Diameter (D) (cm)	Aperture Area (A) (cm sq.)	Efficiency (η) is $G*(\lambda/(\pi D)^2$	Maximum Specified Transmit Power (4 QAM) (dBm)	Transmit Power (P) (mW)	Worst Case Power Density on Surface (Ssurface) (mW/cm^2) is 4P/A	R-near field (cm) is $D^2/4\lambda$
PTM 1000	38	0.789473684	38	6309.573445	26.67	558.6463021	0.560179883	16	39.81071706	**0.285051324**	225.241485

Worst Case Power Density in the Near Field (Snf) (mW/cm^2)	Maximum Power Density Allowed (mW/cm^2)	Designation
is $16\eta P/\pi D^2$		
0.064176368	**1**	**Safe anywhere**