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)	Specified Gain (dB)	Gain (G)	Aperture Diameter (D) (cm)	Aperture Area (A) (cm sq.)	Efficiency (η)	Maximum Specified Transmit Power (4 QAM) (dBm)	Transmit Power (P) (mW)	Worst Case Power Density on Surface (Ssurface) (mW/cm^2)	R-near field (cm)
		is 30/f		is 10^dB gain/10			is G*(λ/(πD)^2			is 4P/A	is D^2/4λ
PTM 1000	31	0.967741935	38	6309.573445	26.67	558.6463021	0.841727108	10	10	**0.071601655**	183.7496325
PTM 1000	31	0.967741935	35	3162.27766	26.67	558.6463021	0.421862881	13	19.95262315	**0.142864085**	183.7496325
PTM 1000	31	0.967741935	34.4	2754.228703	26.67	558.6463021	0.367427209	16	39.81071706	**0.285051324**	183.7496325

Worst Case Power Density in the Near Field (Snf) (mW/cm^2)	Maximum Power Density Allowed (mW/cm^2)	Designation	Minimum Safe distance from the antenna (Cm)
is $16\eta P/\pi D^2$			
0.06026969	**1**	**Safe anywhere**	**20**
0.039268319	**1**	**Safe anywhere**	**20**
0.042093878	**1**	**Safe anywhere**	**20**